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REPORT

ON THE

Health of the County Borough of Belfast for the Year 1946

BY THE

Medical Superintendent
Officer of Health

JOHN K. RANKIN, BELFAST

REPORT

ON THE

Health of the County Borough of Belfast

FOR THE YEAR 1946

* * *

BY

SAMUEL BARRON, M.R.C.P., D.P.H.
The Medical Superintendent Officer of Health for the City

COUNTY BOROUGH OF BELFAST

Public Health Committee

1946

Chairman :
Councillor STUART KNOX HENRY, J.P.

Deputy Chairman :
Alderman ANDREW SCOTT, J.P.

Aldermen :
THOMAS LOFTUS COLE, L.P.S., J.P.
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JAMES KEATING

COUNTY BOROUGH OF BELFAST—1946

Summary of Vital Statistics

Area (Census 1937) (Exclusive of 1,262 acres of Tidal water)	15,289 acres.
Population	444,687 (estimate of Registrar-General for N.I. at 30th June, 1946).
Marriages	3,903
Marriage Rate	8.78
Births Registered	10,327
Birth Rate	23.2
Births (notified)	11,759
Still Births (included in total births notified)	380
Birth Rate average for the ten years 1937-1946	21.7
Deaths	5,326
Death Rate	11.9
Death Rate average for the ten years 1937-1946	13.0
Deaths of Infants under one year of age	630
Infant Mortality Rate	61 deaths per 1,000 births.
Average for the ten years 1937-1946	92 deaths per 1,000 births.
Neo-natal Deaths (under one month)	277
Deaths from Pregnancy, Childbirth, and the Puerperal State	23
Death Rate	2.3 per 1,000 births registered
Deaths from Epidemic Diseases	226
Death Rate from Epidemic Diseases	0.5
Deaths from Measles	5
Deaths from Typhoid Fever	nil
Deaths from Scarlet Fever	2
Deaths from Whooping Cough	31
Deaths from Diphtheria	2
Deaths from Diarrhoea and Enteritis (under two years of age)	116
Deaths from Dysentery	nil
Deaths from Influenza	54
Deaths from Tuberculosis of the Respiratory System	343
Death Rate from Tuberculosis of the Respiratory System	0.7
Deaths from Bronchitis	300
Deaths from Pneumonia	338
Deaths from Pleurisy	10
Deaths from other Diseases of the Respiratory System (Tuberculosis excepted)	95

To

The Right Honourable the Lord Mayor (Alderman William Frederick Neill, F.A.I., J.P., M.P.) and the Aldermen and Councillors of the County Borough of Belfast.

PUBLIC HEALTH DEPARTMENT,
CITY HALL,
July, 1947.

My Lord Mayor, Aldermen and Councillors,

I have the honour to submit the Annual Report on the health of the city for the year 1946.

The vital statistics of the year under review continued to be satisfactory, the figures of the previous year being generally maintained and in some cases improved upon.

The population of the City, as estimated by the Registrar-General for Northern Ireland was 444,687.

The birth rate at 23.2 per 1,000 of the population shows an upward trend when compared with the ten year average of 21.7. The birth rate for England and Wales for the year ending 31st March, 1946, was 15.9.

The death rate of 11.9 was fractionally higher than 1945 (11.6) but was well below the ten year average of 13.0, and also compared favourably with the general death rate for England and Wales at 12.6, and for Northern Ireland at 12.5.

The infantile mortality rate was 61 per 1,000 births, and the lowest ever recorded in the city. The previous lowest rate of 84 for 1945 has been surpassed and when compared with the ten year average of 92 the improvement is very satisfactory.

Deaths of infants occurring in the first four weeks of life gave a neo-natal mortality rate of 27 per 1,000 births which is also the lowest on record.

The maternal mortality rate (deaths from pregnancy, childbirth and the puerperal state) was 2.3 per 1,000 births ; this is an increase on the 1945 rate which was 1.8, the lowest on record.

The sickness incidence and mortality rates of the notifiable infectious diseases were remarkably low. It is of interest to note that there were only 2 deaths from Scarlet Fever, 2 from Diphtheria and none from Typhoid Fever—diseases which in former times held a prominent place in the death returns of the city.

The marked decline in the attack rate and death rate from Diphtheria which has been evident in the past few years continued in 1946, and there seems every reason to attribute this to the increased numbers of children who are now immunised against Diphtheria. There is, however, still much apathy or negligence on the part of some parents to take the precaution against Diphtheria by having their children immunised when one year old.

The expected epidemic of Measles commenced about the middle of November and continued until the end of March, 1947. Although a large number of children developed the infection the mortality rate was relatively low.

The deaths from Pulmonary Tuberculosis numbered 343, an increase of 17 over the 1945 figure, which was the lowest record for the city.

During the year the number of hospital beds in institutions for the treatment of tuberculosis was increased from 558 to 612. In spite of this increased provision of hospital accommodation the demand for admission of patients continued, and the long "waiting" list was only moderately reduced. The Ministry of Health and Local Government extended the accommodation at the E.M.S. Hospital at Musgrave Park, Belfast, and thus made available about 140 beds for tuberculous patients from the City. This greatly eased the situation caused by the increased demand for hospital treatment.

The scheme for the provision of "treatment allowances" to patients who gave up their employment to undergo treatment for tuberculosis continued in operation during 1946, and proved of great benefit to patients and their dependants. It would be a great advantage if the "treatment allowances" scheme could be extended for the benefit of all patients who have been advised to give up their work because of tuberculosis—at present the scheme is limited to "hopeful" cases.

The mass radiography unit established at 225 Albertbridge Road in June, 1945, continued operations in 1946 ; the report of the Medical Director of the unit gives interesting figures regarding the discovery of unsuspected cases of tuberculosis, many of whom had been unknowing spreaders of infection. It is obviously impossible to have precautions taken against the spread of tuberculous infection if active "infectors" are not known. Mass radiography serves a useful preventive function if "hidden" infective persons are discovered by its operation. The benefit of earlier treatment for tuberculous persons discovered by mass radiography is also a strong point in favour of the scheme.

During the year the Public Health (Tuberculosis) Act (N.I.), 1946, received Royal Assent. The Northern Ireland Tuberculosis Authority was set up but did not take over the administrative control of the tuberculosis scheme during the year.

Housing

Whilst admitting considerable improvement in the vital statistics for the city it is contended that Belfast is not the healthy city it should be—after all, vital statistics dealing with death rates and incidence of certain notifiable infectious diseases are rather crude methods of giving an indication of the health of a city. It does not follow that, because a city has a low general death rate, or even a low infantile mortality rate, that the citizens are living in the enjoyment of good health. There is a vast amount of minor illness and chronic invalidism which, at present, cannot be calculated by statistical methods. Much of this ill health could be prevented.

It is not proposed to go into the various causes of ill health or the methods of prevention. It is universally recognised that much ill health is due to bad environment, particularly bad housing conditions : other factors such as malnutrition and faulty habits of living play a part in its causation, but a large proportion of illness of mind and body with accompanying unhappiness is directly due to bad housing conditions. The most pressing problem in the city is the shortage of houses.

The urgent need for housing accommodation has resulted in extensive "sub-letting" of rooms with consequent overcrowding, insanitary conditions and ill health. I feel that the extent of this sub-letting and its evils are not fully appreciated. In many of the poorer areas of the city nearly all the houses are occupied by two or more families, and in other districts larger obsolescent houses are occupied by several families. The sharing of out-of-date and ill-equipped houses often brings friction between housewives which does no good to their nerves and general health.

There are about 17,000 applicants who are anxious to obtain homes, and it is estimated that to meet these demands and replace "unfit" houses about 25,000 new houses are required.

The difficulties in the way of providing new housing are generally recognised; apart from the acute shortage of many essential building materials there is the difficulty of providing suitable and sufficient building sites. Everyone who is familiar with the situation in the city acknowledges that sufficient and suitable land for building development is not available inside the present municipal boundary and it is most regrettable that the Belfast Corporation's proposal to promote a Bill to enable suitable building sites to be acquired outside the city, by the extension of the city boundary, was not successful.

House Repairs

The housing problem is further aggravated by the gradual dilapidation of existing house property in many of the poorer districts of the city. Many of the houses referred to were built about 70 years ago and have now become so defective in structure that their extensive repair and upkeep would not be an economic proposition. These houses would be regarded as unfit for human habitation and demolished if alternative accommodation was available for the displaced tenants.

During the year the acute shortage of supply of almost every kind of building material caused much delay in the carrying out of repairs for the abatement of nuisances: the situation was not improved by the occurrence of a severe snow storm and a long spell of very frosty weather which caused much damage to water pipes, roofs, spoutings, etc.

Food Inspection

During the year increased attention was given to premises where foodstuffs were stored, manufactured or exposed for sale : the state of health and personal cleanliness of food handlers were also investigated. These inspections were deemed to be necessary on account of the outbreaks of infectious diseases and food poisoning which had occurred in various centres in Great Britain. Although no outbreaks occurred in Belfast the possibility of such required to be kept in mind. Several premises where food (ice cream) was manufactured were found to be in an unsatisfactory condition of cleanliness and in two of these, where no improvement followed verbal warnings, summonses were issued and fines imposed by the magistrates.

Large quantities of foodstuffs, principally "tinned" food were found to be unsound and unfit for human consumption; these foodstuffs were surrendered by the owners when certificates were issued to satisfy the requirements of the Ministry of Food for the purpose of replacements.

Ice Cream

A large number of samples of Ice Cream was taken for bacteriological examination to ascertain their state of cleanliness and their compliance with the standards prescribed by the Ice Cream Regulations (Northern Ireland), 1945. The examinations revealed that a comparatively large number of the samples was in a dirty state and legal proceedings were taken in 60 instances. Fines amounting to £96 10s. 0d. were inflicted in these cases.

Milk Supplies

It is satisfactory to note that adulteration of milk is now a relatively rare occurrence : this is probably due to the desire of the milk producers to provide a satisfactory product, and in this connection credit must be given to the encouragement given by the Ministry of Agriculture to farmers to uphold the high reputation of farm produce.

The supply of adulterated milk is discouraged by the frequent sampling of supplies at the Ministry's milk depots—in this way unsatisfactory supplies are easily detected and the defaulting producer is "called to task"; improvement generally follows without the necessity of taking legal proceedings.

A large proportion of the milk supplied in the city is pasteurised, and it is significant that the incidence of tuberculosis of bovine origin in humans has gradually declined.

A close check on the efficiency of pasteurisation of milk supplies was carried out by subjecting samples to the phosphatase test.

Rodent and Insect Pest Control

During the war attention was frequently directed to the necessity of seeing that there was no wastage of food and, in this connection, public health authorities were urged to see that inspections of premises, etc., were carried out in order to discover infestations of rats or mice. Where infestations were found it was the duty of the authority to see that the occupiers of land or premises took proper steps to free their premises of the vermin. The Public Health Committee recognised the importance of their responsibilities in this matter and agreed that a staff of Sanitary Officers, having the specialised training in the subject, should be delegated to carry out inspections of premises and give advice on the procedures for freeing same of rats and mice. The results obtained in this work have fully justified the special arrangements.

One of the officers, having specialised experience gained during his service in the R.A.F. during the war, was engaged in the suppression of the mosquito nuisance by the larviciding of collections of stagnant water where the insects were found to be breeding. The Public Health Committee were again indebted to Professor Gregg Wilson for his kindness in examining and reporting upon the mosquito larvae submitted to him.

In the Maternity and Child Welfare section of this report attention might be directed to the substantial increase in the number of attendances at the 25 Child Welfare and 12 Ante Natal sessions held weekly ; this increase goes to show that the mothers are taking a greater interest in the welfare of their children and that the services rendered by the municipality are appreciated. Information will be found in regard to the service of Home Helps—this service has already demonstrated its value in affording help for the care of children and carrying out of domestic duties in the home during the absence of the mother in hospital or her incapacity due to illness at home.

The annual report of the School Health Services is incorporated in the report of the Director of Education.

The report of the Belfast Port Sanitary Authority gives information on the inspection of vessels arriving at the port and the measures taken to prevent the importation of infectious diseases from foreign ports. During the year several cases of small pox from the Far East were disembarked at British Ports. Some of the contacts came to Belfast and there was some anxiety lest some of these should develop the disease. They were kept under close surveillance and none of them contracted small pox.

It is again my privilege to thank all the members of my staff for their continued loyalty and devotion to duty.

Finally, I wish to place on record my sincere thanks to the Chairmen and Members of the Committees concerned with the administration of the Public Health Services, especially to the Public Health Committee for the support which has been extended to me on all occasions.

I have the honour to be,

My Lord Mayor and Gentlemen,

Your obedient servant,

SAMUEL BARRON,
Medical Superintendent Officer of Health
and Port Medical Officer.

TABLE I.

COUNTY BOROUGH OF BELFAST

CAUSES OF DEATH AT DIFFERENT AGE PERIODS

Detailed International List Nos.	CAUSES OF DEATH		AGES AT DEATH																																
			All Ages	Under 1 day	1 day & less than 7 days	1–4 weeks	1–2 months	2–3 months	3–6 months	6–12 months	Total under 1 year	1–	2–	3–	4–	Total under 5 years	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	60–	65–	70–	75–	80–	85–	90–	95 and upwards
	Total Deaths (All Causes)	M	2,698	69	57	26	42	36	85	54	369	31	17	13	8	438	15	19	32	40	39	51	71	95	113	152	189	239	331	359	276	153	65	19	2
		F	2,628	50	48	27	25	19	53	39	261	32	15	9	8	325	16	16	39	49	50	64	59	64	93	102	140	230	270	389	345	236	100	33	8
1, 2	Typhoid and Paratyphoid Fevers	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Plague	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	Scarlet Fever	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	2	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	Whooping Cough	M	18	..	..	..	3	1	3	5	12	2	2	..	2	18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	13	..	..	..	..	..	4	1	5	4	3	1	..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	Diphtheria	M	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
13	Tuberculosis of the Respiratory System	M	192	..	..	..	..	..	..	3	3	..	1	..	1	5	..	2	6	18	18	18	18	20	22	16	14	16	9	6	3	1	..	..	..
		F	151	..	..	..	..	..	..	1	1	..	..	1	..	2	..	3	21	29	29	17	12	7	10	7	3	4	4	2	1	..	..	..	..
14	Tuberculosis of the Meninges and Central Nervous System	M	18	..	..	..	..	..	1	1	2	6	2	1	1	12	1	..	..	..	..	..	..	1	1	1	..	..	..	2	..	..	..	..	..
		F	17	..	..	..	..	..	1	1	2	4	1	..	3	10	2	3	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15	Tuberculosis of the Intestines and Peritoneum	M	5	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..
		F	8	..	..	..	..	..	..	1	1	1	..	..	..	2	..	..	..	..	..	3	..	2	1	..	..	..	..	..	..	..	..	..	..
16–22	All other forms of Tuberculosis	M	18	..	..	..	..	1	..	..	1	..	..	1	1	3	1	1	5	3	1	1	..	..	..	1	1	1	..	..	..	..	..	..	..
		F	12	..	..	..	..	..	..	1	1	2	..	..	..	3	1	..	..	2	3	..	2	..	..	1	..	..	..	..	..	..	..	..	..
24	Purulent Infection and Septicaemia (non-puerperal)	M	3	..	..	..	1	1	..	..	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
		F	8	..	..	..	..	..	2	..	2	..	..	..	..	2	1	..	1	..	..	..	1	1	1	..	1	..	..	..	..	..	..	..	..
27	Dysentery	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28	Malaria	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
30	Syphilis	M	26	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	2	4	1	4	7	4	3	..	..	..	..	..
		F	7	..	..	..	..	1	2	..	3	..	..	..	..	3	..	..	..	..	..	..	2	..	..	..	..	2	..	..	..	..	..	..	..
33	Influenza	M	17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	2	..	3	1	1	4	2	2	..	..
		F	37	..	..	..	..	..	1	1	2	1	..	..	..	3	..	..	1	..	..	1	..	..	2	1	1	2	1	7	6	8	2	2	..
34	Smallpox	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
35	Measles	M	4	..	..	..	..	..	..	1	1	3	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
39	Typhus Fever	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE I—*continued*

Detailed International List Nos.	CAUSES OF DEATH		AGES AT DEATH																																
			All Ages	Under 1 day	1 day & less than 7 days	1–4 weeks	1–2 months	2–3 months	3–6 months	6–12 months	Total under 1 year	1–	2–	3–	4–	Total under 5 years	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	60–	65–	70–	75–	80–	85–	90–	95 and up-wards
40–42	Diseases due to Helminths	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4-7, 11, 12, 23, 25 26, 29, 31 32, 36, 37 38, 43, 44	Other Infective or Parasitic Diseases	M	15	..	..	..	..	..	..	..	...	1	..	..	1	2	..	1	1	..	1	2	1	1	..	1	1	2	1	..	1	..	..	..	..
		F	19	..	..	..	..	1	..	1	2	..	..	1	..	3	..	..	..	1	1	4	3	..	2	3	..	..	..	1	..	..	1	..	..
1–44	Total of Infective or Parasitic Diseases	M	317	..	..	..	5	3	4	10	22	12	5	3	6	48	3	4	12	22	21	21	21	25	27	22	21	29	15	12	8	3	3	..	..
		F	276	..	..	..	..	2	10	7	19	14	4	3	3	43	5	6	24	33	33	25	21	10	16	12	5	8	5	10	7	8	3	2	..
45	Cancer and other Malignant Tumours of the Buccal Cavity and Pharynx	M	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	3	3	6	4	..	..	..	..
		F	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	2	..	1	..	..	..	..
46	Cancer and other Malignant Tumours of the Digestive Organs and Peritoneum ..	M	206	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	4	2	13	9	24	22	37	54	22	8	6	2	..
		F	169	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	2	2	7	7	13	26	42	33	24	7	2	1	..
47	Cancer and other Malignant Tumours of the Respiratory System	M	43	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	3	6	10	5	6	2	4	2	1	..	..	..
		F	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	2	4	4	3	5	1	1	..	..	..	..
48	Cancer and other Malignant Tumours of the Uterus ..	F	41	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	5	2	4	7	9	7	..	3	..	..	..
50	Cancer and other Malignant Tumours of the Breast ..	M	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
		F	51	..	..	..	..	..	..	..	...	..	..	..	..	..	..	..	..	..	..	..	1	3	6	7	2	9	8	4	5	4	1	1	..
49, 51-55	Cancer and other Malignant Tumours of other or Unspecified Organs	M	64	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	3	2	3	..	3	6	9	13	12	10	2	..	..	..
		F	58	..	..	..	..	..	..	..	..	..	3	..	1	4	..	..	1	..	1	..	2	4	4	5	9	8	6	7	4	3	..	..	..
56–57	Non - Malignant Tumours, or Tumours of Undetermined Nature	M	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	1	..	1	..	..	..	1	..	..	..	1	..	..
		F	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	5	..	2	2	..	..	..	..
45–57	Total of Cancer and other Tumours	M	340	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	3	1	5	10	8	21	22	36	40	57	76	38	11	7	2	..
		F	361	..	..	..	..	..	..	..	..	..	3	..	1	4	..	..	1	1	1	3	9	12	27	26	33	59	72	54	37	17	3	2	..
58	Rheumatic Fever	M	9	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	2	..	..	..	1	..	1	2	..	..	..	..	..	..	..	..	..
		F	23	..	..	..	..	..	..	..	..	..	..	1	..	1	2	2	5	2	1	3	1	..	2	2	..	..	..	1	1	..	..	..	..
59, 60	Chronic Rheumatism and Gout ..	M	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	1	..	..	..	..	..	..
		F	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	3	2	3	5	2	3	..	..	1
61	Diabetes Mellitus	M	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	3	1	1	2	1	..	..	..
		F	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	3	4	2	4	5	2	..	..	..

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Detailed International List Nos.	CAUSES OF DEATH		AGES AT DEATH																																
			All Ages	Under 1 day	1 day & less than 7 days	1–4 weeks	1–2 months	2–3 months	3–6 months	6–12 months	Total under 1 year	1–	2–	3–	4–	Total under 5 years	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	60–	65–	70–	75–	80–	85–	90–	95 and upwards
63	Diseases of the Thyroid and Parathyroid Glands	M	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..
		F	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	1	..	..	..	..	..
62, 64-66	Other General Diseases ..	M	4	..	1	..	..	1	..	..	2	..	..	1	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	5	..	..	..	..	..	1	..	1	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..
67–71	Vitamin Deficiency Diseases ..	M	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
58–71	Totals of Rheumatism, Diseases of Nutrition, and the Endocrine Glands. Other General Diseases and Vitamin Deficiency Diseases	M	30	..	1	..	..	1	..	..	2	1	..	1	..	4	2	1	3	..	..	..	1	2	5	2	1	3	2	1	2	1	..	..	..
		F	78	..	..	..	..	..	1	..	1	1	..	1	..	3	3	2	5	2	1	5	2	2	2	6	8	7	5	11	8	5	..	..	1
73	Pernicious and other Anaemias ..	M	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	1	..	..	..	..	..
		F	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	1	2	3	3	1	2	1	..	..
72, 74-76	Leukaemias, Aleukaemias, and other Diseases of the Blood and Blood-forming Organs ..	M	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	..	2	1	1	2	1	1	..	..	..
		F	11	..	1	..	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	1	..	1	2	3	..	2	..	..	..	..	..	..
72-76	Total of Diseases of the Blood and Blood-forming Organs ..	M	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	1	..	2	1	3	3	1	1	..	..	..
		F	27	..	1	..	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	1	3	1	2	4	2	5	3	1	2	1	..	..
77	Chronic or Acute Alcoholism ..	M	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
78, 79	Other Chronic Poisoning ..	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
77-79	Total of Chronic Poisoning and Intoxication	M	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
81	Non-meningococcal Meningitis	M	6	..	..	..	..	..	..	2	2	1	1	..	..	4	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..
		F	2	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
82	Diseases of the Medulla and Spinal Cord, other than Locomotor Ataxia	M	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
83	Inter-cranial Lesions of Vascular Origin	M	180	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	4	1	6	15	19	42	29	33	17	8	2	1
		F	236	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	2	3	12	14	27	28	62	46	27	11	..	..
84	Mental Disorders and Deficiency	M	2	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
		F	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
85	Epilepsy	M	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	..	1	..	..	2	..	..	..	..	..	..	..
		F	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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Detailed International List Nos.	CAUSES OF DEATH		AGES AT DEATH																																	
			All Ages	Under 1 day	1 day & less than 7 days	1–4 weeks	1–2 months	2–3 months	3–6 months	6–12 months	Total under 1 year	1–	2–	3–	4–	Total under 5 years	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	60–	65–	70–	75–	80–	85–	90–	95 and upwards
80, 86, 87	Other Diseases of the Nervous System	M	27	..	2	..	1	3	3	2	11	..	1	..	..	12	..	..	1	..	1	1	2	3	..	3	1	..	..	..	3	..	..	..	..
		F	23	..	..	..	1	..	4	1	6	..	..	..	..	6	1	..	..	1	..	..	..	1	2	2	1	1	1	3	2	1	1	..	..
88-89	Diseases of the Eye, Ear and their Annexa	M	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
		F	2	..	..	..	..	1	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
80-89	Total of Diseases of the Nervous System and Sense Organs	M	228	..	3	..	1	3	3	4	14	1	2	..	..	17	..	1	2	..	4	2	5	8	3	9	16	23	42	31	37	17	8	2	1
		F	266	..	..	..	1	1	4	2	8	..	..	..	..	8	3	..	..	2	1	1	3	3	5	15	15	28	29	65	48	28	12	..	..
90	Pericarditis (including Chronic Rheumatic Pericarditis)	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
92	Chronic Affections of the Valves and Endocardium	M	47	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	2	2	5	1	3	5	4	4	6	6	3	2	..	..	..
		F	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	1	5	1	7	10	6	2	6	8	7	7	4	1	..	..
93	Diseases of the Myocardium including Aneurysm of the Heart	M	340	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	3	3	5	9	21	32	59	78	68	37	16	6	..
		F	407	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	1	2	4	6	11	21	35	48	84	77	64	35	13	2
94	Diseases of the Coronary Arteries and Angina Pectoris	M	191	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	8	15	24	32	28	45	21	12	4	..	..	..
		F	101	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	7	7	17	14	27	12	12	2	..	..
91,95	Other Diseases of the Heart	M	60	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	5	1	4	3	2	8	8	13	9	4	..	..	..
		F	85	..	..	..	..	..	..	..	..	1	..	..	..	1	1	1	..	1	2	1	2	..	1	3	7	7	13	12	18	9	5	1	..
97-98	Arterio-sclerosis and Gangrene	M	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	2	3	5	5	8	4	3	1	..
		F	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	2	..	6	7	5	1	..	1
96, 99-103	Other Diseases of the Circulatory System	M	42	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	1	1	2	6	5	6	5	7	6	2	..	..	..
		F	43	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	2	..	2	2	2	5	5	1	13	6	3	1	..	..
90-103	Total of Diseases of the Circulatory System	M	715	..	..	..	..	..	..	1	1	..	..	1	..	2	..	2	3	2	3	5	15	15	30	48	66	81	128	130	106	53	19	7	..
		F	732	..	..	..	..	..	1	..	1	1	..	..	..	2	1	2	3	5	6	9	5	16	20	29	43	72	84	149	127	97	45	14	3
106	Bronchitis	M	162	..	..	..	1	1	1	1	4	2	..	..	..	6	..	..	..	1	..	2	4	7	8	9	14	23	24	30	19	14	..	1	..
		F	138	..	..	..	1	1	1	1	4	1	..	1	..	6	..	..	..	..	..	1	1	3	5	3	3	15	22	28	30	14	5	2	..
107-109	Pneumonia and Broncho-Pneumonia	M	193	..	1	5	14	7	30	22	79	8	6	3	..	96	2	1	1	1	..	..	3	6	3	11	9	7	15	14	12	9	2	1	..
		F	145	1	4	6	6	5	12	8	42	13	1	3	1	60	1	..	2	2	..	3	2	..	2	..	6	10	7	15	18	9	5	3	..
110	Pleurisy (non-tuberculous)	M	5	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	1	..	..	..
		F	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	1	1	..	..	..	..	..
104, 105 111–114	Other Diseases of the Respiratory System	M	52	..	..	..	1	..	3	1	5	..	..	..	..	5	..	..	..	1	..	..	2	5	3	10	5	6	6	3	5	1	..	..	..
		F	43	..	..	..	2	..	1	..	3	..	..	..	..	3	..	1	..	1	1	2	..	..	1	3	5	2	6	8	6	3	1	..	..
104–114	Total of Diseases of the Respiratory System	M	412	..	1	6	16	8	34	24	89	10	6	3	..	108	2	1	1	3	..	2	9	19	14	30	28	37	45	48	36	25	2	2	..
		F	331	1	4	6	9	6	14	9	49	14	1	4	1	69	1	1	2	3	2	6	3	3	8	6	15	28	36	52	54	26	11	5	..
117	Ulcer of the Stomach or Duodenum	M	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	5	3	4	5	4	1	3	..	1	..	..	..
		F	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	..	..	1	..	..	1	..	..	..

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Detailed International List Nos.	CAUSES OF DEATH		AGES AT DEATH																																
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119	Diarrhoea and Enteritis (under 2 years of age)	M	62	..	..	..	14	9	27	10	60	2	..	..	..	62	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	54	..	1	3	10	7	16	15	52	2	..	..	..	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
120	Diarrhoea, Enteritis and Ulceration of the Intestines (2 years of age and over)	M	4	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
		F	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	3	..	2	..	1	..	..	..	..
121	Appendicitis	M	14	..	..	..	..	..	..	..	..	..	..	1	..	1	..	3	3	2	..	..	1	..	..	1	..	1	1	1	..	..	..	..	..
		F	5	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	1	..	1	1	..	..	..	..	..
122	Hernia, Intestinal Obstruction	M	15	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	2	5	1	2	2	1	..	..
		F	21	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	1	..	2	..	2	2	5	2	4	..	1	1	..
124	Cirrhosis of the Liver	M	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	..
		F	5	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..
125-127	Other Diseases of the Liver and Biliary Passages, including Biliary Calculi	M	3	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
		F	20	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	1	2	1	1	1	4	1	3	3	1	1	..	..
115, 116, 118, 123, 128, 129	Other Diseases of the Digestive Organs	M	13	..	..	1	..	..	..	..	1	..	..	..	..	1	1	..	..	..	1	..	..	..	..	1	2	3	1	..	2	..	..	..	1
		F	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	2	..	1	2	1	1	2	..	..	..	..
115-129	Total of Diseases of the Digestive System	M	145	..	..	2	14	9	27	10	62	3	1	1	..	67	2	3	5	3	1	2	2	5	4	8	7	10	9	6	4	5	1	..	1
		F	128	..	1	3	10	7	18	15	54	2	1	..	1	58	..	1	..	..	1	..	4	7	5	2	8	9	11	7	10	2	2	1	..
130-132	Nephritis	M	53	..	..	..	..	..	1	1	2	1	..	1	..	4	..	1	2	..	2	1	3	4	1	2	3	4	9	7	5	3	1	1	..
		F	57	..	..	1	..	..	1	..	2	..	..	..	1	3	..	1	..	..	..	3	3	2	3	1	5	9	6	8	5	4	4	..	..
133	Other Diseases of the Kidneys and Ureters	M	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	1	1	..	..	..	..
		F	9	1	..	..	..	..	..	1	2	..	..	..	..	2	..	..	..	..	1	1	..	1	1	1	..	..	1	..	1	..	..	..	..
134	Calculi of the Urinary Passages	M	3	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
		F	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	1	..	..	..	..	..	..
135	Diseases of the Bladder, except Tumours	M	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	1	..	..	..
		F	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
136	Diseases of the Urethra, Urinary Abscess, etc.	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
137	Diseases of the Prostate	M	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	8	12	11	6	5	..	..
138, 139	Other Diseases of the Genital Organs (not specified as Venereal or connected with Pregnancy or the Puerperal State	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..	..

TABLE I—*continued*

Detailed International List Nos.	CAUSES OF DEATH		AGES AT DEATH: All Ages	Under 1 day	1 day & less than 7 days	1–4 weeks	1–2 months	2–3 months	3–6 months	6–12 months	Total under 1 year	1–	2–	3–	4–	Total under 5 years	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	60–	65–	70–	75–	80–	85–	90–	95 and upwards
130-139	Total of Diseases of the Urinary and Genital System (not Venereal or connected with Pregnancy or the Puerperal State) ..	M	110	..	..	..	..	..	2	1	3	1	..	1	..	5	..	1	2	..	4	1	4	4	2	4	3	5	18	22	18	10	6	1	..
		F	75	1	..	1	..	..	1	1	4	..	..	..	1	5	..	1	..	..	1	4	4	3	8	3	6	9	9	8	6	4	4	..	..
142-145	Diseases and Accidents of Pregnancy	F	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..
141	Abortion, without mention of Septic Conditions	F	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
140	Post-abortive Infection ..	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
147	Infection during Childbirth and the Puerperium	F	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
146, 148-150	Other Accidents and Diseases of Childbirth and the Puerperium	F	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	4	4	2	..	..	..	..	..	..	..	..	..	..	..
140-150	Total of Diseases of Pregnancy, Childbirth and the Puerperal State	F	23	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	3	8	4	3	..	..	..	..	..	..	..	..	..	..	..
151-153	Diseases of the Skin and Cellular Tissue	M	5	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	1	..	1	1	1	..	..	..	..	..	..	..	..
		F	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
154-156	Diseases of the Bones and Organs of Movement, except Tuberculosis and Rheumatism ..	M	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
		F	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..
157	Congenital Malformations ..	M	36	5	9	5	1	5	6	1	32	1	..	..	..	33	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
		F	27	4	3	9	2	2	..	4	24	..	1	..	..	25	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
158	Congenital Debility	M	20	2	..	1	4	6	4	3	20	..	..	..	..	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	9	3	..	..	1	..	4	1	9	..	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
159	Premature Birth (still-births excluded)	M	70	35	23	9	1	..	2	..	70	..	..	..	..	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	62	34	19	6	2	1	..	..	62	..	..	..	..	62	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
160	Injury at Birth (still-births excluded)	M	14	6	7	1	..	..	..	..	14	..	..	..	..	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	8	2	6	..	..	..	..	..	8	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
161	Other Diseases peculiar to the first year of life	M	32	18	12	1	..	1	..	..	32	..	..	..	..	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	20	5	14	1	..	..	..	..	20	..	..	..	..	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
158-161	Total of Diseases peculiar to the first year of life	M	136	61	42	12	5	7	6	3	136	..	..	..	..	136	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	99	44	39	7	3	1	4	1	99	..	..	..	..	99	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE I—*continued*

Detailed International List Nos.	CAUSES OF DEATH		AGES AT DEATH All Ages	Under 1 day	1 day & less than 7 days	1–4 weeks	1–2 months	2–3 months	3–6 months	6–12 months	Total under 1 year	1–	2–	3–	4–	Total under 5 years	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	60–	65–	70–	75–	80–	85–	90–	95 and upwards
162	Senility, Old Age	M	93	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	19	24	22	19	5	..
		F	144	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	23	41	43	18	9	3
163, 164	Suicide	M	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	1	2	2	..	1	1	..	2	..	..	..	..	..
		F	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..
165-168	Homicide	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
170	Automobile Accidents (all motor driven road vehicles) ..	M	19	..	..	..	..	..	..	..	..	..	2	..	1	3	2	1	..	2	2	1	..	..	1	..	1	1	2	2	1	..	..	..	..
		F	11	..	..	..	..	..	..	..	..	..	1	1	1	3	1	1	..	..	..	1	1	..	..	..	..	..	1	2	..	1	..	..	..
169, 171-195	Other Violent or Accidental Deaths (automobile accidents excepted)	M	58	3	1	1	..	..	1	..	6	1	..	3	1	11	3	2	2	..	3	8	1	4	2	3	3	5	1	5	1	4	..	..	..
		F	31	..	..	1	..	..	..	..	1	..	4	..	..	5	2	..	1	..	..	2	..	1	..	..	..	1	5	5	5	2	1	..	1
197	Deaths of Civilians due to Operations of War	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
198	Legal Executions	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163–195 197, 198	Total of Violent or Accidental Deaths	M	90	3	1	1	..	..	1	..	6	1	2	3	2	14	5	3	2	4	5	11	2	6	5	3	5	7	3	9	2	4	..	..	..
		F	45	..	..	1	..	..	..	..	1	..	5	1	1	8	3	1	1	..	1	3	1	1	1	..	1	1	6	7	5	3	1	..	1
199, 200	Causes of Death Unstated or Ill-defined	M	22	..	..	..	..	..	1	..	1	1	1	..	..	3	..	..	..	1	..	..	1	1	..	3	3	3	4	2	..	1	..	..	..
		F	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	4	2	..	1	1	..	..	..

The principal causes of deaths (in order of importance) were as follows :—

1.	Heart Disease	1,302
2.	Cancer	682
3.	Pulmonary Tuberculosis	343
4.	Pneumonia and Broncho Pneumonia	338
5.	Bronchitis	300
6.	Senile Decay	237
7.	Violence	135
8.	Premature Births (still births excluded)	132
9.	Diarrhoea and Enteritis	127
10.	Nephritis	110

TABLE II.

Trend of mortality from the four principal causes of death in Belfast from 1937 :—

YEAR	Heart Disease	Cancer	Pulmonary Tuberculosis	Respiratory Tract
1937	1,306	564	414	795
1938	1,314	568	348	691
1939	1,344	572	365	580
1940	1,387	576	412	840
1941	1,277	570	426	685
1942	995	633	369	546
1943	1,116	613	367	655
1944	1,098	620	354	523
1945	1,130	664	326	517
1946	1,302	682	343	638

TABLE III

Shewing the number of deaths at various age periods, the percentage of the total number registered, and the death rates per 1,000 of the population.

	No. of Deaths	Percentage of Total Deaths	Death Rate per 1,000 of the Population
Under 1 year	630	11.8	1.4
1 year and under 5 years	133	2.4	0.2
5 years and under 25 years	226	4.2	0.5
25 years and under 45 years	493	9.2	1.1
45 years and under 65 years	1,258	23.6	2.8
65 years and upwards	2,586	48.5	5.8
Total	5,326		

TABLE IV

Shewing the number of Deaths registered as having been caused by Phthisis and Diseases of the Respiratory Organs during the twenty years, 1927-1946.

YEAR	Population	Phthisis	Rate per 1,000	Diseases of the Respiratory System			Total Chest Affections
				Pneumonia	Others	Total	
1927	416,000	515	1.2	479	526	1,005	1,520
1928	415,151	499	1.2	521	542	1,063	1,562
1929	415,151	485	1.2	680	761	1,441	1,926
1930	415,151	436	1.0	357	482	839	1,275
1931	415,151	452	1.1	518	479	997	1,449
1932	415,151	448	1.1	539	461	1,000	1,448
1933	415,151	429	1.0	583	605	1,188	1,617
1934	415,151	398	0.96	434	421	855	1,253
1935	415,151	389	0.93	597	445	1,042	1,431
1936	436,000	406	0.93	450	373	823	1,229
1937	438,112	414	0.95	503	405	908	1,322
1938	443,500	348	0.78	465	294	759	1,107
1939	443,500	365	0.82	316	357	673	1,038
1940	444,500	412	0.93	404	539	943	1,355
1941	444,500	426	0.96	330	446	776	1,202
1942	444,500	369	0.83	325	298	623	992
1943	425,000	367	0.86	451	291	742	1,109
1944	430,800	354	0.82	315	286	601	955
1945	435,900	326	0.75	274	339	613	939
1946	444,687	343	0.77	338	405	743	1,086

TABLE V

Showing the number of deaths from Epidemic Diseases during the ten years 1937-1946.

YEAR	Smallpox	Typhus Fever	Typhoid Fever	Scarlet Fever	Diphtheria	Puerperal Fever	Cerebro-Spinal Fever	Measles	Influenza	Diarrhoea	Dysentery	Whooping Cough
1937	—	—	7	7	14	20	5	27	218	193	1	32
1938	—	—	—	8	11	12	8	224	57	163	1	51
1939	—	—	—	7	34	6	5	13	50	216	—	35
1940	—	—	1	10	85	7	22	150	161	316	—	54
1941	—	—	—	2	56	3	20	—	88	202	—	19
1942	—	—	—	—	15	6	13	17	18	182	—	9
1943	—	—	4	3	10	11	5	11	50	310	—	40
1944	—	—	—	2	11	4	3	1	21	202	1	22
1945	—	—	1	2	7	5	2	10	16	188	1	26
1946	—	—	—	2	2	3	2	5	54	127	—	31

TABLE VI

Shewing the population, the number of Births, the Birth Rate per 1,000, the number of Deaths, the Death Rate per 1,000, and the natural increase during the twenty years, 1927-1946.

Year	Population	No. of Births	Birth Rate per 1,000	No. of Deaths	Death Rate per 1,000	Natural Increase
1927	416,000	9,509	22.9	5,653	13.6	3,856
1928	415,151	9,356	22.5	5,804	14.0	3,552
1929	415,151	8,899	21.4	6,462	15.6	2,437
1930	415,151	9,558	22.7	5,451	12.9	4,107
1931	415,151	9,470	22.8	5,857	14.1	3,613
1932	415,151	8,882	21.4	5,783	13.9	3,099
1933	415,151	8,599	20.7	6,318	15.2	2,281
1934	415,151	9,086	21.9	5,676	13.7	3,410
1935	415,151	8,848	21.3	6,238	15.0	2,610
1936	436,000	9,242	21.2	6,207	14.2	3,035
1937	438,112	9,150	20.9	6,341	14.5	2,809
1938	443,500	9,146	20.6	6,069	13.7	3,077
1939	443,500	8,966	20.2	5,758	12.9	3,208
1940	444,500	8,704	19.6	6,583	14.8	2,121
1941	444,500	8,383	18.9	6,641	14.9	1,742
1942	444,500	9,659	21.7	4,973	11.2	4,686
1943	425,000	10,713	25.2	5,511	13.0	5,202
1944	430,800	10,456	24.3	5,176	12.0	5,280
1945	435,900	9,853	22.6	5,069	11.6	4,784
1946	444,687	10,327	23.2	5,326	11.9	5,001

TABLE VII

Shewing the number of deaths from Cancer and other Tumours for the year 1946, as compared with the preceding five years.

Year		1	2	3	4	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90 and			Grand
	Under 1	2	3	4	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	over	M	F	Total
1946	—	—	3	—	1	1	2	1	4	2	8	19	20	48	48	69	99	129	130	75	28	10	4	340	361	701
1941	—	—	1	—	—	1	4	4	7	9	5	11	29	49	48	78	84	114	83	35	25	7	—	267	327	594
1942	2	—	1	1	—	2	1	3	—	2	12	23	40	49	66	78	90	104	94	55	18	10	2	312	341	653
1943	—	1	—	2	—	1	2	1	1	4	7	16	25	49	68	66	98	106	103	58	20	5	2	287	348	635
1944	—	—	—	1	1	2	—	3	3	8	13	17	29	46	54	76	100	108	91	57	19	6	3	315	322	637
1945	1	—	1	—	—	4	1	4	5	2	10	13	36	52	45	69	95	97	126	78	40	9	—	323	365	688
Totals	3	1	3	4	1	10	8	15	16	25	47	80	159	245	281	367	467	529	497	283	122	37	7	1,504	1,703	3,207

It will be seen from the above table that the average number of deaths registered annually as having been caused by Cancer and other Tumours during the quinquennial period 1941 to 1945 was 642 (301 males and 341 females).

It should be noted that the above Table includes non-malignant tumours and tumours of undetermined nature.

TABLE VIII

Showing by age periods and sexes the number of cases of Infectious Diseases notified, pursuant to the Infectious Disease (Notification) Act, 1889.

DISEASE	Under 1 Year		1 Year and under 2 Years		2 Years and under 5 Years		5 Years and under 10 Years		10 Years and under 15 Years		15 Years and under 25 Years		25 Years and under 45 Years		45 Years and upwards		Age unknown		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Typhoid Fever ..	..	..	..	..	..	..	..	..	..	2	3	1	3	2	2	..	..	..	13
Scarlet Fever ..	3	4	19	21	116	130	123	163	48	81	12	22	3	4	4	..	..	..	753
Puerperal Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Diphtheria ..	4	4	11	5	25	23	23	26	13	21	13	33	4	11	..	4	..	..	220
Erysipelas ..	..	..	..	..	..	..	1	1	1	1	2	5	4	17	22	26	6	9	95
Cerebro-Spinal Meningitis	1	2	4	1	2	4	3	4	4	1	2	5	4	1	..	1	..	..	39
Poliomyelitis ..	..	..	..	1	1	3	1	..	..	1	..	..	1	..	..	..	..	..	8

No cases of Typhus Fever, Simple Fever, Smallpox, Relapsing Fever, Membraneous Croup or Encephalitis Lethargica were notified during the year.

MEASLES - 1491 Cases notified

WHOOPING COUGH 1137 ,, ,,

TABLE IX

Shewing the number of cases of infectious diseases notified during the ten years 1937-1946, pursuant to the Infectious Disease (Notification) Act, 1889.

	Typhoid Fever	Scarlet Fever	Diph-theria	Cerebro-Spinal Meningitis	Polio-myelitis	Puerperal Fever	Erysipe-las
1937 ..	21	1486	847	20	2	11	128
1938 ..	12	2107	664	35	3	14	119
1939 ..	20	1696	686	12	5	7	134
1940 ..	17	1266	1165	166	2	9	115
1941 ..	44	453	683	246	7	3	83
1942 ..	10	778	427	122	5	12	82
1943 ..	29	1964	322	75	2	2	60
1944 ..	5	1679	217	48	5	5	67
1945 ..	14	768	213	39	20	1	76
1946 ..	13	753	220	39	8	1	95

Infectious Diseases

SCARLET FEVER

753 cases were notified during the year, but on investigation 26 were found not suffering from the disease. In addition to those notified, 3 cases notified as diphtheria were found to be suffering from scarlet fever, which made the total number that occurred during the year 730, an attack rate of 1.7 per 1,000 of the population.

The number of cases which occurred during the preceding year was 742, and the average number notified annually during the ten years 1936-1945 was 1,400.

2 deaths occurred, equivalent to a case mortality-rate of 0.3 per cent., or a death rate of 0.005 per 1,000 of the population. There were 2 deaths in the preceding year. The average number annually during the ten years 1936-1945 was 6.

DIPHTHERIA

220 cases were notified, but on investigation 36 were found not suffering from the disease. In addition to those notified, 4 cases notified as scarlet fever, 1 case notified as C.S.F. and 1 case notified as erysipelas were found to be suffering from diphtheria, which made the total number that occurred during the year 190; an attack rate of 0.4 per 1,000 of the population.

The number of cases that occurred during the preceding year was 191, and the average number notified annually during the ten years 1936-1945 was 628.

2 deaths occurred, equivalent to a case-mortality rate of 1.06 per cent., or a death-rate of 0.005 per 1,000 of the population. The number of deaths in the preceding year was 7, and the average number annually during the ten years 1936-1945 was 28.

TYPHOID FEVER

13 cases were notified during the year, but on investigation 3 were found not suffering from the disease, which made the total number that occurred during the year 10; an attack-rate of 0.03 per 1,000 of the population.

The number of cases which occurred during the preceding year was 12, and the average number notified annually during the ten years 1936-1945 was 20.

No deaths occurred during the year. 1 death occurred in the preceding year; the average number occurring annually during the ten years 1936-1945 was 1.

ERYSIPELAS

95 cases were notified during the year, but on investigation 6 cases were found not suffering from the disease, which made the total number that occurred during the year 89. The number of cases that occurred in the preceding year was 76, and the average number notified annually during the ten years 1936-1945 was 96.

CEREBRO-SPINAL FEVER

39 cases were notified during the year, 6 of which were found not suffering from the disease, making the total number of cases that occurred during the year 33; an attack-rate of 0.08 per 1,000 of the population. Of these, 2 deaths cccurred, equivalent to a case mortality-rate of 6.1 per cent., or a death-rate of 0.005 per 1,000 of the population.

MEASLES

1,491 cases of measles were notified during the year, an attack-rate of 3.4 per 1,000 of the population.

The number of cases that occurred during the preceding year was 1,702.

5 deaths occurred during the year, 10 occurred in the preceding year, and the average number annually during the ten years 1936-1945 was 46.

WHOOPING-COUGH

1,137 cases of whooping-cough were notified during the year, an attack-rate of 2.6 per 1,000 of the population.

The number of cases notified during the preceding year was 603.

31 deaths were caused by whooping-cough, equivalent to a death-rate of 0.07 per 1,000 of the population. In the preceding year the number of deaths from this disease was 26, and the average number registered annually during the ten years 1936-1945 was 36.

DIARRHOEA AND ENTERITIS

116 deaths of children under 2 years of age were caused by this disease during the year, equivalent to a death-rate of 0.27 per 1,000 of the population.

The number of deaths that occurred during the preceding year was 172, and the average number of deaths annually during the ten years 1936-1945 was 223.

PUERPERAL FEVER

One case of this disease was notified. The number of cases notified during the preceding year was 1, and the average number notified annually during the ten years 1936-1945 was 10.

EPIDEMIC DISEASES

226 deaths were caused by epidemic diseases during the year, equivalent to 4.2 per cent. of the total number of deaths from all causes, or a death-rate of 0.6 per 1,000 of the population. During the preceding year the deaths from epidemic diseases numbered 258, equivalent to 5.1 per cent. of the total deaths, or a death rate of 0.6.

2, or 0.9 per cent., of the total deaths from epidemic diseases were caused by scarlet fever; 2 or 0.9 per cent., by diphtheria; 3, or 1.4 per cent., by puerperal fever; 2, or 0.9 per cent., by cerebro-spinal fever; 5, or 2.3 per cent., by measles; 54, or 23.9 per cent., by influenza; 127, or 56.2 per cent., by diarrhoea and enteritis; and 31, or 13.8 per cent., by whooping-cough.

CORRECTED DIAGNOSIS OF INFECTIOUS DISEASES FOR 1946

3 cases of typhoid fever, 26 cases of scarlet fever, 36 cases of diphtheria, 1 case of membraneous croup, 6 cases of Erysipelas, 10 cases of C.S.F., 2 cases of poliomyelitis were found not suffering from the disease notified. Of these, 3 cases of diphtheria were found to be suffering from scarlet fever, 4 cases of scarlet fever were found to be suffering from diphtheria, 1 case of C.S.F. was found to be suffering from diphtheria and 1 case of erysipelas was found to be suffering from diphtheria. The remainder were found not to be suffering from any notifiable infectious disease.

Venereal Diseases

Statement showing the services rendered at the Treatment Centre at Royal Victoria Hospital, Belfast, during the year ended 31st March, 1947, classified according to the areas in which the patients resided

Name of County or County Borough	Belfast	Co. Down	Co. Antrim	Co. Armagh	Co. Derry	Co. Fermanagh	Co. Tyrone	Co. Donegal	Port	Gibraltar Evacuees	Travelling	Dublin	Total
A. Number of cases from each area dealt with during the year for the first time and found to be suffering from :—													
Syphilis	363	37	47	4	8	1	6	..	31	..	7	..	504
Gonorrhoea	433	45	45	5	11	..	..	..	40	1	9	..	589
Soft Chancre	3	..	..	..	..	..	..	..	..	..	..	..	3
Conditions other than Venereal ..	1,637	50	47	8	3	..	5	..	55	..	11	..	1,816
Total	2,436	132	139	17	22	1	11	..	126	1	27	..	2,912
B. Total number of attendances of all patients residing in each area	24,051	1,203	2,228	158	183	1	111	..	396	29	32	..	28,392
C. Aggregate number of "In-patient days" of all patients residing in each area ..	663	65	316	3	82	5	2	..	..	90	27	..	1,253
D. Number of doses of arseno-benzol compounds given in the: 1. Out-Patient Clinic ..	15,004	953	2,181	175	115	2	144	..	205	21	13	..	18,813
2. In-Patient Dept. ..	85	17	49	..	27	..	4	..	..	..	1	13	196
to patients residing in each area													

Venereal Diseases

Return relating to all Persons who were treated at the Treatment Centre at Royal Victoria Hospital, Belfast, during the year ended 31st March, 1947

	Syphilis		Gonorrhoea		Soft Chancre		Conditions other than Venereal		Total		
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
1. Number of cases which :— (a) at the beginning of the year under report were under treatment or observation for.. ..	4,676	2,288	3,996	187	..	..	..	..	8,672	2,475	
(b) had been marked off in a previous year as having ceased to attend or as transferred to other centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	97	47	90	3	..	..	..	..	187	50	
Total—Items 1 (a) and (b)	4,773	2,335	4,086	190	..	..	..	..	8,859	2,525	
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time ..	337	167	530	59	3	..	1,369	447	2,239	673	
Total—Items 1 (a), 1 (b), and 2 (a) ..	5,110	2,502	4,616	249	3	..	1,369	447	11,098	3,198	
2. (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	12	1	9	..	..	..	..	..	21	1	
3. Number of cases which ceased to attend— (a) before completing the first course of treatment for	37	12	65	5	..	..	..	..	102	17	
(b) after one or more courses, but before completion of treatment for ..	24	8	43	7	..	..	..	..	67	15	
(c) after completion of treatment, but before final tests as to cure of	..	..	..	..	..	..	..	..	..	..	
4. Number of cases transferred to other Treatment Centres after treatment for	26	18	41	1	..	..	..	..	67	19	
5. Number of cases discharged after completion of treatment and observation for	..	..	136	..	..	..	..	..	136	..	
6. Number of cases which, at the end of the year under report, were under treatment or observation for	5,023	2,464	4,331	236	3	..	..	..	9,357	2,700	
Total—Items 3, 4, 5, and 6	5,110	2,502	4,616	249	3	..	..	..	9,729	2,751	
7. Out-patient attendances— (a) For individual attention by the Medical Officer	..	..	..	..	..	..	..	..	..	..	
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	..	..	7,943	..	..	..	..	..	7,943	..	
Total Attendances	..	..	..	..	..	..	..	..	..	..	28,392
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from ..	234	559	323	136	..	..	..	..	557	695	

Venereal Diseases

Statement showing the services rendered at the Treatment Centre at Mater Infirmorum Hospital, Belfast, during the year ended 31st March, 1947, classified according to the areas in which the patients resided

Name of County or County Borough	Belfast	Co. Antrim	Co. Down	Co. Derry	Co. Fermanagh	Co. Tyrone	Co. Armagh	Port	Total
A. Number of cases from each area dealt with during the year for the first time and found to be suffering from :—									
Syphilis	107	10	6	2	..	..	..	6	131
Gonorrhoea	146	5	4	1	..	..	..	13	169
Soft Chancre	..	..	..	..	..	..	..	..	..
Conditions other than Venereal ..	471	..	..	..	..	..	..	..	471
Total	724	15	10	3	..	..	..	19	771
B. Total number of attendances of all patients residing in each area	5,178	113	66	6	..	..	..	45	5,408
C. Aggregate number of "In-patient days" of all patients residing in each area ..	192	65	..	5	..	..	..	2	264
D. Number of doses of arseno-benzol compounds given in the : 1. Out-Patient Clinic ..	1,531	38	28	..	..	..	..	8	1,605
2. In-Patient Dept. ..	30	22	..	..	..	..	..	..	52
to patients residing in each area									

Venereal Diseases

Return relating to all Persons who were treated at the Treatment Centre at Mater Infirmorum Hospital, Belfast, during the year ended 31st March, 1947

	Syphilis		Gonorrhoea		Soft Chancre		Conditions other than Venereal		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of cases which :—										
(a) at the beginning of the year under report were under treatment or observation for	206	89	20	22	..	..	..	..	226	111
(b) had been marked off in a previous year as having ceased to attend or as transferred to other centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	2	..	..	..	..	..	..	..	2	..
Total—Items 1 (a) and (b)	208	89	20	22	..	..	..	..	228	111
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time	101	30	138	31	..	..	198	273	437	334
Total—Items 1 (a), 1 (b), and 2 (a)	309	119	158	53	..	..	198	273	665	445
2. (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	19	3	9	2	..	..	..	..	28	5
3. Number of cases which ceased to attend—										
(a) before completing the first course of treatment for	6	..	3	..	..	..	..	..	9	..
(b) after one or more courses, but before completion of treatment for	10	2	16	4	..	..	..	..	26	6
(c) after completion of treatment, but before final tests as to cure of	38	6	39	7	..	..	..	..	77	13
4. Number of cases transferred to other Treatment Centres after treatment for	31	6	16	4	..	..	..	..	47	10
5. Number of cases discharged after completion of treatment and observation for	51	15	58	19	..	..	..	..	109	34
6. Number of cases which, at the end of the year under report, were under treatment or observation for	173	90	26	19	..	..	..	..	199	109
Total—Items 3, 4, 5, and 6	309	119	158	53	..	..	..	..	467	172
7. Out-patient attendances—										
(a) For individual attention by the Medical Officer	2,025	1,088	706	255	..	..	335	431	3,066	1,774
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	170	120	132	146	..	..	..	..	302	266
Total Attendances	2,195	1,208	838	401	..	..	335	431	3,368	2,040
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from	150	71	..	43	..	..	..	..	193	71

DIPHTHERIA IMMUNISATION

During the year 7,762 persons completed a course of treatment against diphtheria ; of these 6,167 were immunised at clinics, schools and institutions, 1,515 by private practitioners with material supplied by the Department, and 80 by the medical staff at Purdysburn Fever Hospital while undergoing treatment for scarlet fever.

The total number of persons who had completed a course of treatment from the inception of the work in October, 1936, until the end of December, 1946, details of whose age grouping are given in the table below, was 80,562.

In addition, 3,918 children received reinforcing injections.

Table showing age grouping of children immunised since October, 1936

Age at Date of Inoculation	1936-37	1938	1939	1940	1941	1942	1943	1944	1945	1946	
Under 1 Year..	27	21	6	17	33	71	36	69	33	57	Total under 5 years at end of 1946 **16,345** Equal to 50% of this age-group
1 year ..	362	413	253	299	906	1634	2576	2492	2445	2329	
2 years ..	470	363	204	335	1405	1373	1642	1329	1474	1554	
3 years ..	539	450	205	285	1258	985	1043	628	614	752	
4 years ..	527	534	268	346	1228	937	997	455	358	514	
5 years ..	814	690	366	508	1262	929	1022	663	542	557	Total over 5 and under 10 years at end of 1946 **26,969** Equal to 67.4% of this age-group
6 years ..	1336	1209	656	818	1408	1123	1133	965	810	691	
7 years ..	1281	1539	753	756	1356	1017	963	802	678	615	
8 years ..	905	1233	420	399	995	567	706	492	360	328	
9 years ..	645	668	223	182	647	315	382	251	170	132	
10 years ..	506	295	119	88	433	221	222	107	71	75	Total over 10 and under 15 years at end of 1946 **23,780** Equal to 59.4% of this age-group
11 years ..	358	127	50	61	200	103	81	44	44	50	
12 years ..	289	95	29	33	213	85	73	33	18	35	
13 years ..	192	77	28	22	171	86	78	47	40	27	
14 years ..	136	62	17	20	141	60	40	26	27	25	
Over 15 years	148	58	24	11	78	180	37	25	67	21	Total over 15 years **13,468**

TREATMENT OF SCABIES

During the year 2,649 treatments were carried out at the Scabies Clinic at the Disinfecting Station, Laganbank Road.

PORT SANITARY AUTHORITY, BELFAST

Annual Report for the Year 1946

The Corporation of Belfast as the Sanitary Authority was permanently constituted the Port Sanitary Authority for the Port of Belfast by the Local Government Board (Ireland) Provisional Orders Confirmation (No. 4) Act, 1900.

The jurisdiction of the Port Sanitary Authority extends to all that part of the said Port of Belfast which lies on the landward side of a straight line drawn from Blackhead, in the Larne rural district, to Orlock Point, in the Newtownards rural district, together with the waters of the said Port of Belfast within such limits ; and all docks, basins, harbours, creeks, rivers, channels, bays and streams within the aforesaid limits ; and the place or places which may from time to time be appointed as the Customs Boarding Station or stations for such part of the said Port ; and the place or places for the time being appointed for the mooring or anchoring of ships for such part of the said Port under the authority of the statutes in that behalf ; and for the purposes of any regulations, as aforesaid, shall also extend to any ship which in pursuance thereof, or any directions given thereunder, may be moored, or anchored at the place appointed thereunder, as aforesaid, or which may be on its way thither.

The expenses of the Port Sanitary Authority are contributed by the urban and rural sanitary authorities in the following proportions :—

The Corporation of Belfast	92%
The Carrickfergus Urban District Council ..	1%
The Holywood Urban District Council	1%
The Bangor Borough Council	1%
The Belfast No. 1 Rural District Council ..	1½%
The Belfast No. 2 Rural District Council ..	1½%
The Larne Rural District Council	1%
The Newtownards Rural District Council ..	1%

I—AMOUNT OF SHIPPING ENTERING THE PORT DURING THE YEAR

TABLE A

	Number	Tonnage	Number Inspected		Number recorded to be defective	Number of vessels on which defects have been remedied	Number of vessels reported as having had during the voyage infectious disease on board
			By Medical Officer	By Sanitary Officer			
FOREIGN							
Steamers ..	191	291035	21	191	68	65	5
Motors ..	51	99065	5	51	20	19	1
Sailing ..	..	..	..	..	..	..	..
Fishing ..	..	..	..	..	..	..	..
Total Foreign ..	242	390100	26	242	88	84	6
COASTWISE							
Steamers Motors Sailing Fishing ..	6680	3388400	9	2112	539	525	9
NON-TRADING							
Steamers ..	440	..	..	..	..	..	..
Sailing ..	..	..	..	..	..	..	..
Total Coastwise	7120	3388400	9	2112	539	525	9
Total Foreign and Coastwise	7362	3778500	35	2354	627	609	15

II—CHARACTER OF TRADE OF PORT

TABLE B

(a) Passenger Traffic during Year

Number of Passengers	Aliens	British	Total	Refused Leave to Land
Inwards by Ship ..	113	164	277	5
Inwards by Aircraft ..	50	11	61	Nil
	163	175	338	5
				Refused Leave to Embark
Outwards by Ship ..	81	2206	2287	Nil
Outwards by Aircraft ..	8	13	21	Nil
	89	2219	2308	Nil

(b) Cargo Traffic

Principal Imports—Wheat, barley, oats, timber, flax, ores, paper, pulp, iron, steel, slates, coal, cement, fertilizers, oil, flour, bran, tobacco, glass, salt, fruit, vegetables, wines, ales.

Principal exports—Machinery, ropes, linen, yarns, tobacco, potatoes, grass seed, butter, eggs, pork, poultry, apples, live cattle, whisky, aerated waters.

(c) Foreign Ports from which Vessels Arrive

Abadan, 9; Alexandria, 2; Amsterdam, 1; Antwerp, 10; Aruba, 2; Baltimore, 11; Bayonne, 1; Boston, 1; Buenos Ayres, 5; Carthagena, 1; Casablanca, 2; Christiansand, 1; Cork, 1; Curacao, 1; Danzig, 2; Domsja ,2; Drogheda, 3; Dublin, 50; Fredrickstad, 1; Galway, 1; Gdynia, 2; Guernsey, 22; Ghent, 17; Gifle, 2; Gothenborg, 7; Haifa, 4; Hamburg, 4; Hamina, 1; Hango, 1; Haugsund, 1; Huelva, 2; Hong-Kong, 1; Kallenburg, 1; Kiel, 1; Kingstown, 1; Jaffa, 1; Jersey, 6; Lisbon, 1; Lorient, 1; Lubeck, 1; Miramichi, 1; Montreal, 14; Newark, 1; Newport News, 1; NewYork, 2; New Orleans, 2; Norfolk, 5; Oslo, 1; Passages, 1; Philadelphia, 1; Port Alfred 1; Port Arthur, 1; Quebec, 1; Rafsoe, 2; Raumo, 1; Rosario, 1; Rotterdam, 3; Sigluford, 2; St. John, 4; Sundsvall, 3; Sydney, 1; Terneuzan, 1; Tonsborg, 1; Trincomalee, 1; Valencia, 1; Vancouver, 3; Wicklow, 1:

The nationality of the vessels which arrived at the Port and were inspected was as follows :—

American, 20; Belgian, 1; British, 2,277; Danish, 1; Dutch, 13; French, 2; Greek, 3; Norwegian, 4; Panamanian, 3; Russian, 1; Spanish, 2; Swedish, 7.

MEDICAL INSPECTION OF ALIENS

Annual return by Medical Inspector of Aliens for the year ended 31st December, 1946

	Total	Number inspected by the Medical Inspector	Certificates Issued						Transmigrants
			Number subjected to detailed examination by the Medical Inspector	Lunatic Idiot or M.D.	Undesirable for medical reasons	Physically incapacitated	Suffering from acute infectious disease	Landing necessary for adequate medical examination	
(a) Total number of aliens landing at the Port	163	5	3	..	..	..	..	..	..
(b) Aliens refused permission to land by Immigration Officer	5	..	..	..	..	..	..	..	..
(c) Transmigrants ..	Nil	..	..	..	..	..	..	..	..
Total Aliens landing at the Port	163	5	3	..	..	..	..	..	..

Total number of vessels carrying Aliens—12 ships, 2 aircraft. Number of vessels dealt with by the Medical Inspector, 5.

III—WATER SUPPLY (a) and (b) FOR THE PORT AND SHIPPING

The water supply for the docks and vessels in the Port is taken from the mains which supply the city and the various districts surrounding Belfast. The supply is controlled by the Belfast City and District Water Commissioners who have hydrants on all quays and wharves.

The water is subjected to regular chemical and bacteriological examination.

(c) Water Boats : there are no water boats at the Port.

IV—PORT SANITARY REGULATIONS (NORTHERN IRELAND), 1946

1. Arrangements for dealing with Declarations of Health

Declarations of Health Forms, as recommended by the Association of Sea and Air Port Health Authorities of the British Isles, are in use at the Port. Special instructions relating to the Port of Belfast are given on the fourth page, and a supply of these forms is distributed to H.M. Customs Officers and the Belfast Harbour Commissioners for the pilotage service.

A Declaration of Health Form signed by the Master and countersigned by the ship surgeon (where one is carried) is received from each vessel arriving in the Port from a foreign port. The Declaration of Health is received by the Customs Officer, or the Port Sanitary Officer, on the arrival of the vessel, and the answers to the questions contained in the declaration are scrutinised and supplementary questions are asked. In cases where the Customs Officer first boards the vessel and the Declaration of Health is satisfactory, pratique is granted.

If the Declaration of Health is not satisfactory the circumstances are immediately reported to the Port Medical Officer, who makes investigations before passengers are allowed to land.

During the year vessels arriving at the port were required to display the appropriate quarantine signals as laid down in these regulations.

2. Boarding of Vessels on Arrival

All vessels arriving from a foreign port are boarded on arrival by an officer of H.M. Customs and an officer of the Port Sanitary Authority.

3. Notification to the Authority of inward vessels requiring special attention (wireless messages, land signal stations, information from Pilots, Customs Officers, etc.)

Arrangements for the transmission of wireless messages from inward-bound vessels requiring special attention under the Regulations have been made with the shipping companies and agents in Belfast. Under these arrangements the shipping companies receive the wireless message required under Article 7, and forward the information to the Port Medical Officer. Alternatively or in addition, wireless messages are received direct by the Port Sanitary Authority, the telegraphic address, "Portelth, Belfast," having been registered for this purpose.

No land signalling system is in operation.

Close co-operation exists between the Port Sanitary Authority and the Officers of H.M. Customs, and notification of the arrival of vessels requiring special attention is promptly received from the latter.

4. Mooring Stations Designated under Article 10

(a) Within the Docks. (b) Outside the Docks.

(a) With the concurrence of H.M. Customs and the Belfast Harbour Commissioners the ordinary places of mooring, discharge or loading in relation to inward vessels arriving from foreign ports, have been designated "Mooring Stations" within the docks.

(b) The outside mooring station is situate at Carrick Roads, about three and a half miles from the nearest point of the docks.

Infected or suspected ships or other ships which may be unhealthy are required to proceed to established mooring stations.

5. Particulars of any Standing Exemptions from the Provisions of Article 14

Standing exemptions from detention under Article 14 are granted (a) in the case of vessels arriving from a port or seaboard included in the lists referred to in Article 11, unless such port or seaboard has been specially referred to in the current list or special instructions have been issued in regard to same (b) in the case of vessels having on board one of the common infectious diseases such as scarlet fever, measles, tuberculosis, mumps, diphtheria, whooping cough, influenza or malaria. Chicken pox and typhoid fever are not included in this list as the Port Medical Officer will see such lest the former might be smallpox and the latter typhus fever.

6. Experience of Working of Article 16 : Restrictions on Boarding or Leaving Vessels

In carrying out the provisions of this article during the year, no difficulty arose, and it was not necessary to require passengers to furnish names and destinations, etc., as there were no cases of infectious disease on board any vessel arriving at the Port calling for this procedure.

7. What, if any, arrangements have been made for

(*a*) *Premises and Waiting Rooms for Medical Examination*

Waiting rooms were provided at the Trans-Atlantic shed, Queen's Quay, which was erected as a Customs examination hall with rooms set apart for the medical examination of inward and outward passengers. During the war this shed was put to other uses and is still being used for the same, but, as the North Atlantic passenger service has not resumed calls at Belfast, the necessity for this hall is not immediate.

The few passengers who do arrive by direct cargo steamers from foreign ports are examined, if necessary, on board the particular vessel.

(*b*) *Arrangements for Cleansing and Disinfection*

After the removal of a case or cases of infectious disease, disinfection of the vessel is carried out by the Port Sanitary Officer. Clothing and other effects are removed to the Municipal Disinfecting Station, Laganbank Road, where they are subjected to steam pressure disinfection. The cleansing of persons is carried out at the Disinfecting Station also, baths having been provided for this purpose.

(*c*) *Temporary Accommodation*

Owing to the removal of the Intercepting Hospital at the West Twin Island, Victoria Channel, no premises for the temporary accommodation of persons for whom such accommodation is required for the purposes of these regulations exist. The Intercepting Hospital was demolished to make a waterway for a new dock.

(*d*) *Hospital Accommodation available for Plague, Cholera, Yellow Fever, Smallpox and other infectious diseases*

The Corporation Isolation Hospital at Purdysburn is available for the reception of cases of infectious diseases. Separate premises situated in the hospital grounds, but self-contained and isolated from the other hospital buildings, are available for the reception of cases of smallpox.

(*e*) *Ambulance Transport*

The Port shares the facilities provided for ambulance transport in the city as a whole.

For infectious cases the ambulances attached to the fever hospitals are available, whilst for non-infectious cases the ambulances attached to the fire services are available.

(*f*) *Arrangements for the Supervision of Contacts*

Where contacts of infectious disease are members of the crew, these are kept under supervision by the Port Medical Officer.

In the case of passengers or members of the crew landing, their destinations are obtained, and if they are proceeding to a place outside Belfast the Medical Officer of the district is notified.

(*g*) *Arrangements for Bacteriological or Pathological Examination of Rats for Plague*

Bacteriological and pathological examinations of rats for plague are carried out by the City Bacteriologist at the Municipal Laboratory, Queen's University.

(*h*) *Arrangements for other Bacteriological and Pathological Examinations*

All other bacteriological and pathological examinations are carried out by the City Bacteriologist at the Municipal Laboratory, Queen's University.

(*i*) *Arrangements for the Diagnosis and Treatment of Venereal Disease among Sailors under International Arrangements*

Upon the arrival of vessels in the Port information is given to the Masters as to the arrangements for the diagnosis and treatment of venereal disease among sailors.

Pamphlets are left on board which give the situation and days and hours of the V.D. Clinics. The pamphlets give warning of the dangers of the disease.

Every encouragement is given for attendance at any of the following clinics:

The Royal Victoria Hospital, the Mater Infirmorum Hospital and the Belfast City Hospital. At each of the clinics beds are available for intern treatment. No charge is made for intern or extern treatment to the patients. Where continuation of treatment at other ports is necessary the sailor's "grey" book is filled in by the Medical Officer in charge of the V.D. clinic, giving full particulars of the treatment he has received.

(*j*) *Arrangements for the Interment of the Dead*

All arrangements for the interment of the dead are attended to by the shipping companies or their agents.

(*k*) *Other matters, if any, requiring or receiving attention*

The matter of vermin on board vessels arriving at the Port has been receiving our attention. During the year a number of vessels were found to be heavily infested with vermin (beetles). Notices were served on the Masters to take such steps as were necessary to abate this nuisance. These vessels were subsequently serviced by a local contractor with satisfactory results.

Where signs of vermin infestation are found on ships requiring fumigation for the purpose of the issue of deratization certificates, vermin concentrations of HC*n* gas (up to 8 ozs. per 1,000 cu. ft. with a minimum exposure of 6 hours) have been used with good results.

TABLE C

Cases of Infectious Sickness landed from Vessels

Disease	Number of Cases during 1946		Number of Vessels concerned	Average Number of cases for previous 5 years
	Passengers	Crew		
Malaria	..	2	2	..
Influenza	..	2	2	..
Tuberculosis	6	..	6	1
Typhoid	..	1	1	..
Measles	..	1	1	..
Dysentery	..	1	1	..
Impetigo	..	2	2	..
Scabies	..	3	2	..

TABLE D

Cases of Infectious Sickness occurring on Vessels during the Voyage, but disposed of prior to arrival.

Disease	Number of Cases during 1946		Number of Vessels concerned	Average Number of cases for previous 5 years
	Passengers	Crew		
Chicken Pox	..	1	1	..
Pneumonia	..	2	2	..

No cases of plague, cholera, yellow fever, smallpox or typhus fever occurred, and no plague infested rats were discovered during the year.

THE PARROTS (PROHIBITION OF IMPORT) (N.I.) REGULATIONS, 1930

During the year notices were served on the Masters of two vessels which arrived at the port with birds of the parrot species on board, namely :—

S/S Wascona from Bahia Blanca	.. 4	Budgerigars.
M/V Prince de Leige from Hong Kong	.. 1	do.

forbidding the landing of these birds within a specified time on the notices, otherwise they would have to be destroyed.

These birds were subsequently exported when the vessels sailed from the Port.

V—MEASURES AGAINST RODENTS

1. Steps taken for Detection of Rodent Plague

(*a*) *In Ships in Port :* All vessels arriving from ports where plague is endemic are boarded by the Port Sanitary Officer as soon as possible after berthing. Enquiries are made as to the prevalence of rats on board, and as to whether any sick or dead rats were found during the voyage. The vessels are then inspected to ascertain the probable rat infestation, and are periodically inspected during the time they remain in port in order to ascertain if any dead rats have been found in the cargo. Traps are set with a view to obtaining rats for bacteriological examination by the City Bacteriologist at the Municipal Laboratory.

(*b*) *On Quays, Wharves and Warehouses :* Instructions are given to the owners, occupiers and employees on the quays, etc., that rats caught or killed should be preserved in air-tight tins for the Port Sanitary Officer, who arranges for them to be sent to the Municipal Laboratory for bacteriological examination.

2. Measures taken to prevent the passage of rats between ship and shore

All vessels arriving from foreign ports are required to affix rat guards to all moorings, and maintain them so fixed during their stay in the port. If the rat population is estimated to be abnormal all gangways and communications are raised at night.

3. Method of Deratization of Ships

(*a*) *Ships :* Deratization of ships is carried out by fumigation with hydrogen cyanide. The fumigations are carried out under the supervision of the Port Sanitary Officer, the minimum concentration being two ounces per thousand cubic feet, with a minimum of two hours exposure, but longer is more desirable.

(*b*) *Premises in the vicinity of the Docks, Quays, etc. :* The various shipping companies, warehousemen and occupiers of premises in the vicinity of the docks carry out, at the request of the Port Medical Officer, such works as may be necessary for the extermination of rats. Notices are issued if necessary under the Rats and Mice Destruction Act, and are served on the occupiers of the premises.

Cats are kept in most of the stores and warehouses. Trapping and poisoned baits are also employed.

During the year the Belfast Harbour Commissioners had men employed putting down baits in the sheds and on the lands under their jurisdiction with effective results and a marked reduction in the rat population.

4. Measures taken for the Detection of Rats in Ships and on Shore

On Ships—Vessels arriving in port are inspected by the Port Sanitary Officer who ascertains as to whether they are infested with rats, and, if so, to what extent.

On Shore—Stores in the vicinity of the docks are inspected regularly by the Port Sanitary Officer for the detection of rats. During the year very little trouble was caused in the stores at the port through rat infestation.

Rat Proofing

(*a*) *To what extent are docks, wharves, warehouses, etc., ratproof?*

The docks and wharves on the County Antrim side of the Port are all constructed to be as near ratproof as possible ; the floors of the sheds and warehouses and the roadways leading thereto are constructed of concrete, or granite setts laid on concrete.

On the County Down side the wharves are mostly erected on piles and these afford a certain amount of harbourage. These wharves are used principally for the discharge of coal, ores, steel, etc., and are not so enticing to rats as wharves where grain or foodstuffs are landed or stored.

(*b*) *Action taken to extend Ratproofing*—(1) *Ships* (2) *On Shore.*

In Ships—Efforts are directed towards sealing vulnerable places, such as provision storerooms and pantries where food is kept. This is generally done by encasing with sheet metal and closing the means of access of rats between one apartment and another so as to make them as ratproof as possible.

On Shore—Periodical inspections are made by the officers of the Port Sanitary Authority to see that the various premises are kept in good condition.

When necessary the owners or occupiers are required to take such action as may be found necessary to prevent the access of rats to their premises and reduce the rat harbourage to the minimum.

The owners and occupiers of premises are aware of the damage done by rats to merchandise, and take every possible means accordingly to keep clear of them as far as practicable.

NUMBER OF RATS DESTROYED DURING THE YEAR

(1) On Vessels

TABLE E

Number of Rats	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Black	25	12	25	26	49	37	15	36	17	17	16	20	295
Brown ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Species not recorded	..	..	..	..	..	..	..	..	..	..	..	..	..
Examined ..	20	12	21	26	30	25	15	30	13	17	16	20	245
Infected with plague	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE F

(2) In Docks, Quays, Wharves and Warehouses

Number of Rats	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Black	10	11	11	8	11	15	9	5	9	11	7	6	113
Brown ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Species not recorded	..	..	..	..	..	..	..	..	..	..	..	..	..
Examined ..	10	11	11	8	11	15	9	5	9	11	7	6	113
Infected with plague	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE G

Measures of Rat Destruction on Plague "Infected or Suspected" Vessels or Vessels from Plague infected ports arriving in the Port during the year.

Total Number of such Vessels Arriving	Number of such Vessels Fumigated with S.02	Number of Rats Killed	Number of such Vessels Fumigated with HCN	Number of Rats Killed	Number of such vessels on which Trapping Poisoning etc., were Employed	Number of Rats Killed	Number of such Vessels on which Measures of Rat Destruction were not Employed
24	..	..	..	..	12	57	12

TABLE H

Deratization Certificates and Deratization Exemption Certificates issued during the year.

Nett Tonnage	Number of Ships	No. of Deratization Certificates Issued				Total	No. of Deratization Exemption Certificates Issued	Total Certificates Issued
		After Fumigation with			After Trapping Poisoning etc.			
		HCN	Sulphur	HCN and Sulphur				
Ships up to 300 tons ..	2	..	..	..	..	..	2	2
Ships from 301 to 1000 tons ..	8	4	..	..	..	4	4	8
Ships from 1001 to 3000 tons ..	5	4	..	..	..	4	1	5
Ships from 3001 to 10,000 tons	16	9	..	..	..	9	7	16
Ships over 10,000 tons ..	3	3	..	..	..	3	..	3
TOTAL ..	34	20	..	..	..	20	14	34

VI—HYGIENE OF CREWS SPACES

TABLE J

Classification of Nuisances

Nationality of Vessel	Number inspected during 1946	Defects of original construction	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health
British ..	2277	22	50	538
Other Nations ..	57	4	3	22

VII—FOOD INSPECTION

1. Action taken under the Public Health (Imported Food) Regulations, 1937, the Public Health (Imported Milk) Regulations, 1926 and the Public Health (Preservatives, etc., in Food) Regulations, 1927-1940.

During the year all sheds and warehouses at the Port where food is landed or stored were inspected regularly for the detection of unsound food.

The quality of the food arriving at the Port maintained a very good standard.

Seizures

	cwt.	qr.	lb.
19 Tins of Corned Beef (6lb. each) ..	1	0	2
13 Cases and 3 Tins of Luncheon Meat (12oz.)	4	0	22
1 Cask of Fruit Pulp	4	0	0
1 Box of Filleted Whiting ..		2	0
Total ..	9	2	24

No milk is imported, but large quantities of fresh milk are exported to Cross Channel ports by the Ministry of Food in conjunction with the Ministry of Agriculture for Northern Ireland.

2. Shellfish—Information respecting any shellfish beds or laying within the jurisdiction of the Port Sanitary Authority, stating whether they are, in the opinion of the Medical Officer, liable to pollution.

Report on any action taken under the Public Health (Shellfish) Regulations, 1936, or the Sale of Food and Drugs Acts (Northern Ireland).

There are no layings of shellfish within the jurisdiction of the Port Sanitary Authority.

Under the Belfast Corporation Act, 1930, it is an offence to gather any shellfish within the jurisdiction of the Port Sanitary Authority.

During the year three persons, who were found gathering shellfish (winkles) on the foreshore of Belfast Lough within the above jurisdiction, were summoned to appear at the Court of Petty Sessions to answer charges for a breach of the above Act and were each fined a sum of 20s. and costs.

Bacteriological Examinations

The following samples were submitted to the City Bacteriologist at the Municipal Laboratory, Queen's University, for bacteriological examination:

3 samples of Winkles
2 ,, ,, Mussels
1 ,, ,, Cockles

REPORT OF THE EXECUTIVE SANITARY OFFICER

To

The Medical Superintendent Officer of Health.

Sir,

I beg to submit my report on the sanitary administration of the city for the year 1946. During this year difficulty was experienced in having nuisances abated promptly, and maintaining housing accommodation in a good habitable standard, owing to the shortage of building materials available for these purposes. While it is agreed that nothing must be done to hinder the construction of new houses in the city, due allowance should be made for the maintenance of existing property where repairs are required under statutory sanitary notice. As the restriction on the execution of such repairs appears to have been taken to extreme lengths, it should be kept in mind that houses which to-day are reasonably fit for human habitation will soon become sub-standard if essential maintenance repairs are not being carried out.

SANITARY SECTION

PROCEEDINGS UNDER THE PUBLIC HEALTH ACTS

Nuisances

Complaints received	9,602
Nuisances discovered	5,903
Total number of inspections made in respect of nuisances	133,322
Number of notices issued	25,697
Number of sanitary improvements carried out	47,785
Summonses issued	1,564
Court Orders obtained	102
Disobedience Summonses issued	8

During the year By-Laws under Section 23, Public Health (Amendment) Act, 1890, were submitted to and approved by the Ministry of Health and Local Government with respect to keeping water closets supplied with sufficient water for flushing, and these by-laws are now in force.

Keeping of Animals

Number of Stables	319
Total number of inspections	1,225
Number of Piggeries	128
Total number of Inspections	977

Offensive Trades

Number of trades on register, 31st December, 1946	11
Total number of Inspections	170
Breaches of By-Laws	7

Common Lodging Houses

Number of houses on register, 31st December, 1946	11
Total registered accommodation	736 adults 4 boys 2 children
Total number of Inspections	184
Nuisances discovered	2
Breaches of By-Laws	1

Atmospheric Pollution

Proceedings re black smoke, other than from private dwelling houses:—

Approximate number of chimneys in city ..	239
Timed observations taken	237
Revealing black smoke over two minutes in half-hour observations	10

In order to bring the law relating to atmospheric pollution into line with that existing in England, the power given under Section 45, Belfast Corporation Act, 1930, to make By-Laws regulating the emission of black smoke should be put in force.

Graveyards

Number in city	11
Total number of Inspections	85
Number of exhumations supervised by the Sanitary Officers	5

Cinemas, Theatres

Number in city	43
Number of routine Inspections	821

In addition to routine inspections concerning cleanliness, sanitary conveniences, spraying, etc., special visits are made in connection with the efficiency of ventilating and heating systems. Tests are carried out involving the use of the Kata thermometer and a hygrometer. Although no legal standards exist for heating and ventilation in such places, if the conditions found are deemed to be unsatisfactory letters are sent to the management drawing attention to the results of the test and requesting that steps be taken to have the conditions improved.

Public Elementary Schools

Number in city	157
Total number of Inspections	1,109
Defects discovered by Sanitary Officers	62
Complaints from School Medical Services investigated	60
Intimations concerning defects sent to Director of Education	46
Intimations concerning defects sent to Managers, etc.	46
Sanitary improvements carried out	70

Miscellaneous Inspections

Tipping grounds	—Number in city	11	Total inspections	110
Marine Stores	— ,, ,,	22	,, ,,	320
Rivers	— ,, ,,	15	,, ,,	153
Public Sanitary Conveniences	— ,, ,,	75	,, ,,	1,582

(including those situated in parks and playgrounds)

Drain Tests

Total number of tests made	359
Number showing defects	180

Provision of Ashbins (Section 44, Belfast Corporation Act, 1930)

Number of notices served under above Section ..	518
Number of ashbins provided	541
Number of Summonses for non-compliance with notice	2

Ashbins are provided on hire to the public by the House Cleansing Section of the City Surveyor's Department, and on a report from the Public Health Department dilapidated bins are replaced where a hire agreement exists. Where no such agreement exists a statutory notice is served on the owner concerned.

Hairdressers Act (N.I.), 1939

Number of applications for registration	2
Number of premises on register, 31st December, 1946	340

Under Section 2 of the above Act power is given to make By-Laws relating to premises where the business of barber or hairdresser is carried on. During the war the Public Health Committee decided not to make such By-Laws until after the cessation of hostilities. It is now proposed to proceed with the making of By-Laws in order to provide for a uniform standard of hygiene in such premises.

Report on the Administration of the Factories Act (Northern Ireland), 1938

PART 1.—INSPECTIONS for the purposes of provisions as to health, including Inspections made by Sanitary Inspectors.

PREMISES	Number of		
	Inspections	Written Notices	Occupiers Prosecuted
Factories with mechanical power	1,246	139	1
Factories without mechanical power	1,230	105	..
Other premises under the Act (including works of building and engineering construction, but not including outworkers' premises)	1,221	32	..
TOTAL ..	3,697	276	1

PART 2.—DEFECTS FOUND

PARTICULARS (1)	Number of Defects			Number of defects in respect of which Prosecutions were instituted (5)
	Found (2)	Remedied (3)	Referred to Chief Inspector (4)	
Want of cleanliness (S.1)	238	224	1	..
Overcrowding (S.2)	1	1	..	..
Unreasonable temperature (S.3)	4	4	1	..
Inadequate ventilation (S.4)	18	16	2	..
Ineffective drainage of floors (S.6)	2	2	..	..
Sanitary Conveniences (S.7) Insufficient	36	30	..	1
Sanitary Conveniences (S.7) Unsuitable or defective	141	129	..	..
Sanitary Conveniences (S.7) Not separate for sexes	3	3	..	..
Other offences (excluding offences relating to Home Work which are included in Part 3 of this report) ..	75	65	..	3
Breach of special sanitary requirements for bakehouses (S.56 to S.59)	73	63	..	..
TOTAL ..	591	537	4	4

PART 3.—HOMEWORK

NATURE OF WORK (1)	Number of Inspections of Out-workers' Premises (2)	Outwork in Unwholesome Premises (Section 115)			Outwork in Infected Premises (Sections 116 and 117)		
		Instances (3)	Notices Served (4)	Prosecutions (5)	Instances (6)	Orders Made (S. 117) (7)	Prosecutions (Ss.116 & 117) (8)
1. Making, cleaning, washing, altering, ornamenting, finishing and repairing of wearing apparel ..	1,506	50	50	..	4	4	..
2. Making-up, ornamenting, finishing, and repairing of table linen or other household linen (including in the term "linen" articles of cotton or cotton and linen mixture) ..	1,231	81	81	..	3	3	..
3. Textile Weaving and any process incidental thereto ..	..	..	..	..	..	..	..
4. Other ..	191	5	5	..	..	..	..
TOTAL ..	2,928	136	136	..	7	7	..

Rag Flock Act, 1911

No. of inspections of premises where rag flock was used	101
No. of samples taken and submitted to Public Analyst	16
Number of samples certified as not being in accordance with the Rag Flock Regulations, 1912 ..	5
No. of cautionary letters issued	3
No. of prosecutions instituted..	2

FOOD INSPECTION (excluding Public Abattoir)

In connection with the adulteration of food and drugs, a total of 850 samples was analysed by the Public Analyst during the year 1946; of these 22 or 2.58 per cent. were reported as adulterated. The number of sweetmilk samples analysed was 459, of which 5 or 1.08 per cent. were adulterated. The corresponding figures for 1945 were : total samples analysed 1,300, of which 46 or 3.5 per cent. were adulterated ; total sweetmilk samples was 656, of which 26 or 3.9 per cent. were adulterated. The percentage of adulteration for all samples was lower than in 1945. In particular, the percentage of adulteration of sweetmilk was remarkably low.

In order to further safeguard the city's milk supply, samples are taken regularly by the Food and Drugs Inspectors and submitted to the City Bacteriologist for examination. Particulars of same are included in City Bacteriologist's report.

SALE OF FOOD AND DRUGS ACT

	Formal	Informal	Total
No. of samples taken for analysis ..	825	25	850
No. of samples adulterated ..	17	5	22
Percentage of samples adulterated ..	2.06	20	2.58

Return showing particulars of adulterated samples

NATURE OF SAMPLE	Samples Taken	Adulterations	Prosecutions	Convictions	FINES £	s.	d.
Baking Powder (informal) ..	1	1	—	—	—		
Buttermilk	26	6	4	4	7	0	0
Cordial, flavoured ..	1	1	—	—	—		
Egg Substitute Powder ..	1	1	—	—	—		
Potatoes, cooked (informal) ..	1	1	—	—	—		
Sausages	23	3	2	2	3	10	0
Sweetmilk	448	4	3	3	10	10	0
Sweetmilk (informal) ..	5	1	—	—	—		
Tongue, cooked (informal) ..	1	1	—	—	—		
Whiskey	4	2	2	2	8	0	0
Whiskey (informal) ..	1	1	—	—	—		

Cases of Adulteration in which no legal proceedings were taken

Formal Samples :

2 of buttermilk, 1 cordial (flavoured), 1 egg substitute powder, 1 sweetmilk and 1 sausages (deficient in meat content) reported to Ministry of Food.

Informal Samples :

1 of baking powder, 1 potatoes (cooked), 1 sweetmilk, 1 tongue (cooked), and 1 whiskey.

Particulars of Sweetmilk Samples

No. of samples taken for analysis—448 formal, 11 informal (6 of which were for Examination for Dirt)—459

No. of samples adulterated, 5

Percentage of total samples adulterated, 1.08.

Visits to Shops, Stores, etc., by Food and Drugs Inspectors

Description of Shops, etc.	Number of Visits
Butchers	2148
Cold Stores	3
Confectioners	773
Dairies	49
Fish	420
Fish and Chip	759
Fruit	465
Grocer	4636
Hawkers' Carts	407
Ice Cream	1989
Jam Factories	8
Markets	30
Meat Factories	102
Pork Stores	1313
Provision	3
Railway	1045
Restaurants	192
Wholesale Stores	19
	14361

PUBLIC HEALTH ACTS

Unsound foodstuffs inspected by the Food and Drugs Inspectors under above Acts, and destroyed or disposed of otherwise than for the food of man, under their supervision.

43	tins	Baking Powder	223	tins	Vegetables, Mixed
1032	,,	Beans	98	packets	Gravy Powder
4737	,,	Bread	564	,,	Meat Extract Cubes
803	,,	Condensed Milk	635	,,	Pudding Mixtures
1046	,,	Fish	137	,,	Shredded Wheat
476	,,	Fruit	50	,,	Soup Powder
166	,,	Jam	200		Lettuce
1625	,,	Meat	9		Fowl
563	,,	Peas	140		Cabbage
230	,,	Tomato Paste	26		Rabbits

Tons	Cwt.	Qrs.	Lbs.	
—	13	1	8	Barley
5	3	3	23	Biscuits
2	10	—	—	Bread
—	1	1	8	Cereals, Mixed
—	6	3	24	Cocoa
—	9	2	8	Confectionery
—	7	3	6	Fruit
2	6	1	2	Fruit, Dried
—	15	3	7	Fruit Pulp
17	6	2	10	Peas, Dried
—	5	2	23	Vanilla Powder
—	2	2	6	Yeast

also 904 tins, 251 packets, 76 bottles, 121 jars and 2 tons 4 cwts. 2 qrs. and 22 lbs. of miscellaneous items.

SALE OF ICE CREAM ACT (N.I.), 1937

No. of premises registered during 1946 (including change of occupier)—	
For Manufacture	1
Manufacture and Sale	18
Sale only	51
No. of premises on register, 31st December, 1946—	
For Manufacture	5
Manufacture and Sale	300
Sale only	362
No. of inspections of registered premises	1989
No. of samples submitted for bacteriological examination	190
No. of cautionary letters sent	54
No. of Summonses issued	60
No. of samples submitted for chemical examination (no standard exists at present)	8

REGISTRATION OF BUTCHERS' SHOPS

Belfast Corporation Act, 1930, Section 43

No. of premises registered during 1946	12
No. of premises on register, 31st December, 1946	373
No. of inspections of registered premises	1148
No. of breaches of By-Laws	Nil

RATS AND MICE (DESTRUCTION) ACT, 1919

During 1946 a Rodent and Insect Pests Control Officer was appointed, also a Rat Destruction Officer, in order to create a full-time section of the Public Health Department to deal with rats, mice and insect pests. A summary of the work of this section is as follows :—

No. of surveys made of lands and premises (likely to be infested with rats)	720
Total No. of inspections, including surveys, re-visits, re-inspections, etc.	1589
No. of premises, lands, etc., found to be infested with rats	88
No. of poison campaigns carried out by Rodent Control Officer on request of occupiers who undertook to pay cost	31 (involving 55 premises)
Estimated No. of rats killed as result of poison campaigns	666
No. of cases where action was taken by occupiers to eliminate rats	33
No. of premises where rat proofing or other works were carried out to prevent infestation	53

CO-OPERATION WITH OTHER CORPORATION DEPARTMENTS

City Surveyor:

Two poison campaigns in sewers in that area bounded by Donegall Place, High Street, Victoria Street, Chichester Street and Donegall Square North. Total estimated kill—547 rats.

Director of Education:

Poison campaigns against rats were carried out in three P.E. Schools and one British Restaurant.

Children Act Committee:

A poison campaign against rats was carried out at the Victoria Homes, Ballysillan Road.

Estates Department:

Instruction given to employees of this Department in the use of D.D.T. for spraying new houses at West Circular Road Estate.

Action taken by District Sanitary Officers regarding rat complaints:

No. of premises where drains were tested	278
No. of premises where drains were defective on test ..	145
No. of notices served under Rats and Mice (Destruction) Act ..	1

MOSQUITO CONTROL

From April to September one Sanitary Sub-Officer, a motor driver and two labourers were employed under the supervision of the Rodent and Insect Pests Control Officer. Preliminary surveys were made of all potential breeding places during the first fortnight in April, and arrangements were made to visit same about every three weeks in order to deal with larvae as they hatched out and prevent unnecessary spraying. Control work consisted of oiling areas where actual breeding was found, drainage work involving the freeing of ditches and drains, and the collection of specimens of larvae for identification by Professor Gregg Wilson.

Miles covered by motor van	1310
Waste transformer oil used	3960 gallons
Waste sump oil used	25 ,,
Civic oil used	95 ,,
Paraffin oil used	95 ,,
Specimens of larvae submitted for identification ..	30
No. of specimens identified as mosquito larvae ..	30

Types of mosquito identified—

Ades detritus (4), Culex pipiens (10), Theobaldia annulata (8), Anopheles claviger (8).

INSECTS OTHER THAN MOSQUITOES

No. of Complaints investigated 19

In all cases the source of the complaint was investigated, the type of insect identified, and advice given re measures of disinfestation.

LEGAL PROCEEDINGS

	Summonses	Orders	Fines £ s. d.
Under Public Health Acts—			
For abatement of nuisances ..	1,564	102	27 10 0
Disobedience of Justices' Orders ..	8	—	3 10 0
Preservatives, etc., in Food Regulations	1	—	0 10 0
Under Sale of Food and Drugs Act ..	8	—	17 10 0
Under Rag Flock Act	2	—	2 0 0
Under Belfast Corporation Acts—			
Gathering shellfish on foreshores of Belfast Lough	3	—	0 7 6
Failed to provide dustbin ..	2	—	—
Under Sale of Ice Cream Act	60	—	96 10 0
Under the Factories Act	4	1	1 0 0
Under Breaches of Section 33B Defence (General) Regulations ..	1	—	—

I am, Sir,

Your obedient Servant,

W. J. HARRIS,
Executive Sanitary Officer.

RAINFALL

The following table, kindly supplied by the Belfast City and District Water Commissioners, shows the rainfall in inches during the several months of the year as recorded at the Water Works at Old Park.

	1946
January	4.77
February	3.52
March	2.46
April	1.08
May	1.12
June	3.68
July	3.28
August	5.89
September	6.98
October	1.40
November	5.67
December	4.56
	44.41

REPORT OF THE CITY VETERINARIAN

On the Work of his Department for the Year 1946

To The Medical Superintendent Officer of Health:

Sir,

I beg to submit my report on the work at the Belfast Municipal Abattoir, in connection with the Ante-mortem and Post-mortem examinations of the animals slaughtered for human food.

Table shewing the number and description of Animals slaughtered and the number condemned during the year.

	Cows	Heifers	Bulls	Bullocks	Calves	Sheep and Lambs	Goats	Pigs	TOTAL
Slaughtered	33,139	10,663	644	20,295	32,157	150,899	2,199	4,001	253,997
Condemned..	2,122	53	8	89	795	194	8	81	3,350

Table shewing amount examined and amount seized and destroyed at the Meat Inspection Station, Public Abattoir.

BEEF—Sides examined, 22 ; seized and destroyed, 2. Quarters examined, 1 ; seized and destroyed, 1. Cuts examined, 3 ; seized and destroyed, 3.

MUTTON—Carcases examined, 5 ; seized and destroyed, 2.

PORK—Carcases examined, 389 ; seized and destroyed, 123.

VEAL—Carcases examined, 1 ; seized and destroyed, 1.

FOWL—Fowl examined, 3,233 ; seized and destroyed, 3,233.

TINNED MEATS—Tinned Meats examined, 10,066 ; seized and destroyed, 10,066.

CEREALS—Packets examined, 2,743 ; seized and destroyed, 2,743.

FISH AND FOWL MARKETS

Seized and Surrendered

32 cwt. 1 qr. 0 lb. of Salt Herrings, 42 stone of Fillets, 93 stone of Kippers, 54 stone of Filleted Haddock, 88 lbs. of Halibut, and 25 Fowl.

Services Rendered to Other Departments

During the year, a general supervision of the health of the animals of the several Committees of the Corporation was exercised. Several animals were purchased for the different departments.

Fortunately, the most of the work done during the year was in the nature of preventive medicine, and calls for little comment.

Yours faithfully,

ALEX. McLEAN,

City Veterinarian and Manager of Abattoir.

PURDYSBURN FEVER HOSPITAL

To the Medical Superintendent Officer of Health.

Dear Sir,

I beg to submit the Annual Report for the year 1946 (52 weeks ending 28th December, 1946).

1,604 cases were admitted during this period, 102 cases remained from the previous year, making 1,706 cases under treatment ; 145 cases remained in hospital, so that 1,561 cases were treated to a conclusion.

The number of admissions in the previous year was 1,789 ; and the average number of admissions in the previous five years, 2,541.

TABLE I

DISEASE	Remaining on 29/12/45	Admitted during Year	TOTAL	Remaining on 28/12/46	NETT	DIED	Mortality per cent. calculated on cases treated to a conclusion
Enteric Typhoid ..	..	10	10	3	7	2	28.55
Para A ..	..	..	..	..	..	..	..
Para B ..	..	3	3	..	3	..	0.00
Scarlatina	58	641	699	41	658	2	0.30
Diphtheria	19	179	198	17	181	1	0.55
Cerebro-Spinal Fever ..	1	27	28	1	27	2	7.40
Tuberculous Meningitis ..	..	10	10	1	9	8	88.88
Acute Poliomyelitis ..	..	10	10	1	9	4	44.44
Pneumonia	..	11	11	1	10	..	0.00
Erysipelas	..	27	27	2	25	1	4.00
Whooping Cough ..	..	70	70	6	64	6	9.37
Measles	1	67	68	29	39	2	5.12
Gastro Enteritis ..	..	37	37	..	37	16	43.24
Pulmonary Tuberculosis ..	20	64	84	39	45	8	17.77
Other Diseases ..	3	448	451	4	447	13	2.90
TOTALS ..	102	1,604	1,706	145	1,561	65	4.16
Comparative Nos. in 1945 ..	123	1,789	1,912	102	1,810	76	4.20

ENTERIC FEVER

10 cases of B. Typhosus infection and 3 of B. Paratyphosus B were admitted during the year.

No cases remained over from the previous year. 3 remained at the end of this year, so that 10 cases were treated to a conclusion. There were 2 deaths from B. Typhosus infection. Of the 13 cases, 11 were from within the city boundary and two came from outside. 5 of the typhoid patients were treated with Penicillin and Sulphathiazol with disappointing results. 2 of these 5 died, one, following perforation, within four days of admission. The other died at her forty-eighth day of illness from protracted typhoid septicaemia complicated by acute intestinal obstruction which had been relieved by laparotomy at her forty-third day.

One case included among the B. Typhosus infections was a man of 57 years admitted with an acute breast abscess from which B. Typhosus was cultured. His primary enteric infection occurred in 1928 when he was a patient in this hospital.

DIPHTHERIA

179 cases were admitted during the year. Of these 38 were bacteriological only. 19 remained from the previous year and 17 remained at the end of this year, so that 143 clinical cases were treated to a conclusion ; of these 1 died, giving a case mortality of 0.70 per cent.

The average stay in hospital of the cases which recovered was 32 days.

Of the 179 admissions, 178 came from within the city boundary, and 1 was a military patient.

In the previous year the admissions numbered 225. Average number of admissions for the previous five years was 354.

TABLE II

Showing the case mortality in age periods.

Ages	Cases	Deaths	Mortality per cent.
Under 1 year	3	..	0.00
1— 2 years ..	9	..	0.00
2— 5 years ..	36	..	0.00
5—10 years ..	36	1	2.77
10—20 years ..	40	..	0.00
Over 20 years	19	..	0.00
TOTALS ..	143	1	0.70

LARYNGEAL DIPHTHERIA

8 cases required operative interference for laryngeal obstruction.

All eight cases were treated by intubation. Seven were entirely successful and made good recoveries. The only fatal case of diphtheria during the year was an unimmunised boy of 7½ years with extensive faucial, laryngeal and pulmonary diphtheria. He was liberally treated with antitoxin and penicillin and had intubation with little relief and died 50 hours after admission.

TABLE III

Showing results in age period in which operative interference was required.

Ages	Cases	Deaths	Mortality per Cent.
Under 1 year	..	..	0.00
1—2 years	2	0	0.00
2—3 years	1	0	0.00
3—4 years	1	0	0.00
4—5 years	3	0	0.00
Over 5 years	1	1	100.00
TOTALS ..	8	1	12.50

CEREBRO-SPINAL FEVER

27 cases were admitted during the year. 1 case remained from the previous year, and 1 remained at the end of this year, so that 27 cases were treated to a conclusion ; of these 2 died, giving a mortality of 7.40 per cent. One patient of 7 months died within 48 hours of admission, and the other fatal case was an infant of 11 weeks who survived eight days in hospital.

Of the 27 admissions, 25 were admitted from the city and 2 were military patients.

In the previous year the admissions numbered 40. Average number of admissions for the previous five years was 105.

Penicillin was available for the treatment of this condition but appears unlikely to improve on the results obtained with sulphonamide preparations.

TABLE IV

Showing the case mortality in age periods.

Ages	Cases	Deaths	Mortality per Cent.
Under 1 year	3	2	66.66
1— 2 years	2	..	0.00
2— 5 years	3	..	0.00
5—10 years	7	..	0.00
10—20 years	5	..	0.00
20—30 years	4	..	0.00
30—40 years	1	..	0.00
40—60 years	2	..	0.00
Over 60 years	..	..	0.00
TOTALS ..	27	2	7.40

TUBERCULOUS MENINGITIS

10 cases were admitted, and 8 treated to a conclusion during the year. One case was transferred home to die, and one case remained in hospital at the end of the year.

ACUTE POLIOMYELITIS AND POLIOENCEPHALITIS

10 cases were admitted, and 9 cases were treated to a conclusion during the year. Of these 4 died. There was no apparent relationship between any of the cases. The surviving cases were ultimately transferred to orthopaedic units with residual paralysis ranging in degree from slight to extensive.

Two cases were nursed in the Both Respirator. One of these died within 20 hours of admission, and the other after 45 days artificial respiration.

TABLE V

Showing the case mortality and sex incidence in age periods.

Ages	Cases	Sex		Deaths	Mortality per cent.
		M	F		
Under 5 years ..	4	1	3	1	25.00
5—10 years ..	2	1	1	1	50.00
10—20 years ..	3	1	2	1	33.33
20—30 years ..	1	1	..	1	100.00
Over 30 years ..	..	..	..	..	..
TOTALS ..	10	4	6	4	40.00

The surviving patients remained in this hospital for an average of 43 days before transfer. The fatal cases died on first, seventh, eighth and forty-fifth days in hospital respectively.

SCARLATINA

641 cases were admitted, 58 remained from the previous year, 41 remained this year, so that 658 were treated to a conclusion. Of these 2 died, giving a mortality of 0.30 per cent. One of the fatal cases was a child of 12 months with scarlatina superimposed on gastro enteritis. The other, a girl aged 9 years, extremely toxic, made no response to serum, penicillin and sulphonamides.

In the previous year the admissions numbered 722. Average number of admissions for the previous five years was 1,131.

RETURN CASES

In 8 cases the return home of a scarlatina patient was followed by other cases of Scarlatina in the household, giving a return rate of 1.07 per cent. On the average, these 8 cases had reached the 26th day from onset of their disease when they were discharged.

PULMONARY TUBERCULOSIS

Two wards were made available for the reception of female cases of Pulmonary Tuberculosis. Nearly all are advanced cases with small prospect of recovery admitted to limit their spreading the condition. Most of them benefit from the hospitalization, and of the 84 cases under treatment 37 left hospital and eight died.

The Nursing Staff chosen for duty in these wards are Mantoux positive reactors with clear reports from miniature radiography.

OTHER DISEASES

The certified causes of death of the 13 fatal cases listed as Other Diseases are as follows :—

Acute Miliary T.B. ..	2	Emphysema of Mediastinum	1
Brain Abscess	1	Hemiplegia and Meningitis (probably Brain Abscess) ..	1
Broncho-Pneumonia ..	3	Pneumococcal Meningitis ..	1
Acute Idiopathic Encephalitis	1	Marasmus	1
Convulsions	1		
Ulcerative Colitis ..	1		

INFECTIOUS CONDITIONS AMONGST THE STAFF

3 Student Nurses developed Rubella.
2 Student Nurses developed Measles.
2 Student Nurses developed Mumps.
1 Student Nurse developed Scarlatina (within a week of commencing training).

All nursing staff are fully immunised against Diphtheria, Scarlatina and Enteric and are X-rayed six-monthly and Mantoux tested.

STAFF

The Staff at the end of the year comprised:

1 Medical Superintendent
3 Resident Medical Officers
1 Steward
2 Typist-Clerks
1 Storekeeper
1 Engineer
1 Fitter
1 Fitter's Helper
1 Plumber
1 Joiner
2 Painters
3 Motormen
4 Firemen
1 Pumping Station Attendant
3 Gate Porters
1 Disinfector
1 Foreman Porter
3 Porters
1 Gardener
4 Groundsmen
1 Matron
1 Assistant Matron
1 Night Sister
8 Ward Sisters
6 Staff Nurses
43 Student Nurses
2 Lady Cooks
1 Seamstress
21 Maids
1 Laundress
7 Laundry Maids

Throughout the year the staff discharged their responsible duties very satisfactorily.

Yours faithfully,

F. F. KANE, *Medical Superintendent.*

Municipal Laboratory,
Queen's University,
Belfast.
1st April, 1947.

To the Medical Superintendent Officer of Health.

Dear Sir,

I beg to present herewith a summary of the work carried out at the laboratory during the year 1946.

INFECTIOUS DISEASES

	Pos.	Neg.	Total
Diphtheria.			
1. Swabs from Practitioners	99	1,252	1,351
2. do. Hospitals	718	2,686	3,404
3. do. Public Health Dept.	20	217	237
4. do. Contacts	..	45	45
5. Direct Examinations	..	123	123
6. Virulence Tests	31	4	.35
Vincent's Angina.			
Swabs	54	85	139
Enteric Group.			
1. Agglutination Reactions	30	174	204
2. Faeces, Blood, etc.	49	152	201
Malaria.			
Blood Films	3	9	12
Food Poisoning.			
Foodstuffs	..	..	120
Meningitis.			
1. Cerebro-Spinal Fluids	14	303	317
2. Typing	14	181	195
Tuberculosis.			
1. Sputa	224	374	598
2. Pus	..	74	74
3. Urines	..	22	22
4. Fluids	..	1	1
Plague.			
Rats	..	..	358
Anthrax	..	1	1
Streptococcal Infections.			
Swabs for Group A. Typing	6	59	65

BRUCELLA ABORTUS INFECTIONS

	Pos.	Neg.	Total
Bloods	1	203	204
Milks	..	115	115

VENEREAL DISEASES

	Pos.	Neg.	Total
Wassermann Reactions (Blood)	203	1,826	2,029
Wassermann Reactions (C.S.F.)	3	8	11
Films for Gonococci	50	170	220
Kahn Reactions	..	..	2,029

MILK EXAMINATIONS

Grade A	Nil
Grade B	2
Grade B (Pasteurized)	119
Grade C	20
Grade C (Pasteurized)	133
Reductase Tests	274
Biological Tests for T.B.	109
Ice Creams	190

WATER EXAMINATIONS

Ordinary Waters	10

UNCLASSIFIED EXAMINATIONS

Urines, Pus, etc.	414
Blood Films, Counts, etc.	406

Yours faithfully,

G. F. W. TINSDALE,
City Bacteriologist.

To

The Medical Superintendent Officer of Health,
Belfast.

MATERNITY AND CHILD WELFARE

INFANTILE MORTALITY

The infantile mortality rate for the year was 61, which is the lowest rate recorded for the city ; the rate for the previous year was 84. Absence of epidemic infection during the year made the largest contribution to the lower rate, but the additional facilities provided by the extension of the Child Welfare Services in recent years, without doubt, contributed their quota to the ultimate result.

The three groups : Prematurity, Diarrhoea and Enteritis, and Pneumonia, Broncho-Pneumonia and Bronchitis, accounted for 59 per cent. of the infantile mortality.

Table A shows the number of deaths from these conditions and the death rate per 1,000 registered births during the past ten years.

Table B shows the deaths of infants under one year and the infantile mortality rates during the past ten years, with an analysis of these deaths and death rates according to different mortality groups.

NEO-NATAL MORTALITY

The neo-natal rate of 27 shows a very substantial reduction on previous figures, and is the lowest rate recorded for the city. The lower rate indicates improved provisions for the welfare of the expectant mother and the new-born child. Neo-natal infection, the bugbear of institutional midwifery, was kept at a creditably low level throughout the year.

Table C shows the neo-natal deaths and neo-natal death rate during the past ten years, with an analysis of total deaths and death rates according to different mortality groups.

MATERNAL MORTALITY

The number of women who died from Pregnancy, Childbirth and the Puerperal state during the year was 23, giving a Maternal Mortality Rate of 2.2 per 1,000 live births. This rate shows a slight increase on the figure of 1.8 for the previous year, which was the lowest rate recorded for the city.

Table D shows the Maternal Mortality per 1,000 live births analysed according to the cause of death.

TABLE A

Showing the number of Deaths of Infants under one year from Prematurity, Diarrhoea and Enteritis, Pneumonia, Broncho-Pneumonia, and Bronchitis.

	1937		1938		1939		1940		1941		1942		1943		1944		1945		1946	
	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births
Prematurity ..	205	22.40	167	18.26	149	16.62	194	22.29	159	18.96	187	19.36	240	22.40	211	20.18	155	15.73	132	12.78
Diarrhoea and Enteritis ..	163	17.81	128	13.99	170	18.96	257	29.53	173	20.64	155	16.05	287	26.79	178	17.02	166	16.85	112	10.84
Pneumonia .. .. Broncho-Pneumonia .. and Bronchitis ..	161	17.59	162	17.71	138	15.39	189	21.71	127	15.15	188	19.46	247	23.06	171	16.35	154	15.63	129	12.49

TABLE B

Showing the Deaths of Infants under one year and the Infantile Mortality Rates during the ten years 1937-1946, with an analysis of these deaths and death rates according to Mortality Groups.

Year	Births	Deaths under One Year	Infantile Mortality Rate	Infective & Parasitic Diseases		Diseases of the Nervous System		Diseases of the Respiratory System		Diseases of the Digestive System		Congenital Malforma-tions		Congenital Debility		Premature Birth		Injury at Birth		Other Diseases peculiar to the First Year of Life		Other Causes	
				Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
1937	9,150	860	94	39	4.26	43	4.70	175	19.13	176	19.24	70	7.65	66	7.21	205	22.40	32	3.50	26	2.84	28	3.06
1938	9,146	880	96	116	12.68	38	4.15	176	19.24	142	15.53	90	9.84	65	7.11	167	18.26	20	2.19	34	3.72	32	3.50
1939	8,966	762	85	42	4.68	42	4.68	148	16.51	181	20.19	61	6.80	78	8.70	149	16.62	12	1.34	23	2.57	26	2.89
1940	8,704	1,065	122	106	12.18	26	2.99	199	22.86	269	30.91	64	7.35	104	11.95	194	22.29	22	2.53	34	3.91	47	5.40
1941	8,383	759	91	38	4.53	33	3.94	131	15.63	185	22.06	62	7.39	73	8.71	159	18.96	15	1.79	21	2.51	42	5.01
1942	9,659	884	92	32	3.31	37	3.83	192	19.88	165	17.08	85	8.80	107	11.08	187	19.36	25	2.59	23	2.38	31	3.20
1943	10,713	1,189	111	81	7.56	39	3.64	255	23.80	300	28.00	84	7.84	73	6.81	240	22.40	26	2.42	58	5.41	33	3.08
1944	10,456	927	89	53	5.07	42	4.02	174	16.64	191	18.27	67	6.41	55	5.26	211	20.18	21	2.01	90	8.61	23	2.20
1945	9,853	828	84	58	5.89	33	3.35	159	16.14	177	17.96	64	6.50	43	4.36	155	15.73	20	2.03	91	9.24	28	2.84
1946	10,327	630	61	41	3.97	22	2.13	138	13.36	116	11.23	56	5.42	29	2.80	132	12.78	22	2.13	52	5.03	22	2.13

TABLE C

Showing the Neo-Natal Deaths and Neo-Natal Death Rate during ten years 1937-1946, with an analysis of these deaths and death rates according to Mortality Groups.

Year	Births	Deaths under Four Weeks	Neo-Natal Rate	Diseases of the Respiratory System		Diseases of the Digestive System		Congenital Malforma-tions		Congenital Debility		Premature Birth		Injury at Birth		Other Diseases peculiar to the First Year of Life		Other Causes	
				Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
1937	9,150	376	41.09	22	2.40	14	1.53	42	4.59	39	4.26	194	21.20	29	3.17	24	2.62	12	1.31
1938	9,146	339	37.06	16	1.75	5	0.55	55	6.01	40	4.37	155	16.95	20	2.19	30	3.28	18	1.97
1939	8,966	300	33.46	15	1.67	13	1.45	32	3.57	53	5.91	135	15.06	12	1.34	23	2.57	17	1.90
1940	8,704	350	40.21	18	2.07	15	1.72	32	3.68	27	3.10	181	20.79	22	2.53	32	3.68	23	2.64
1941	8,383	303	36.14	22	2.62	18	2.15	38	4.53	25	2.98	141	16.82	14	1.67	21	2.51	24	2.86
1942	9,659	388	40.17	39	4.04	26	2.69	53	5.49	31	3.21	180	18.64	21	2.17	21	2.17	17	1.76
1943	10,713	624	58.25	72	6.72	118	11.01	57	5.32	38	3.55	226	21.09	26	2.42	53	4.95	34	3.17
1944	10,456	505	48.30	50	4.78	51	4.88	52	4.97	26	2.49	198	18.94	21	2.01	79	7.56	28	2.68
1945	9,853	391	39.68	39	3.96	22	2.23	40	4.06	13	1.32	148	15.02	18	1.82	87	8.83	24	2.44
1946	10,327	277	26.82	18	1.74	6	0.58	35	3.39	6	0.58	126	12.20	22	2.13	51	4.93	13	1.26

TABLE D

Showing the Maternal Mortality Rate per 1,000 live births analysed according to the cause of death.

CAUSE OF DEATH	No. of Deaths	Rate per 1,000 Live Births
Post-Abortion Infection	0	0.00
Abortions (not Septic)	1	0.09
Ectopic Gestation	1	0.09
Haemorrhage of Pregnancy	0	0.00
Toxaemia of Pregnancy	3	0.29
Other Diseases and Accidents of Pregnancy	1	0.09
Haemorrhage of Childbirth, etc.	5	0.48
Infection during Childbirth and the Puerperium	3	0.29
Puerperal Toxaemia	4	0.38
Other Accidents of Childbirth	5	0.48
Other Conditions of Childbirth and Puerperal State	0	0.00

TABLE E

Showing the Deaths of Children under one year old per 1,000 births each year from 1927-1946

YEAR	Deaths per 1,000 Births	YEAR	Deaths per 1,000 Births
1927	101	1937	94
1928	103	1938	96
1929	112	1939	85
1930	78	1940	122
1931	90	1941	91
1932	111	1942	92
1933	102	1943	111
1934	80	1944	89
1935	112	1945	84
1936	101	1946	61

MIDWIVES

During the year 248 midwives gave the required notice of their intention to practise ; of these, 246 were certified by examination and 2 otherwise certified.

During the year the services of Medical Practitioners were requisitioned by midwives in 228 emergency cases, and the Belfast Corporation, as the Local Supervising Authority, paid in fees £306 18s. 6d. for attendances in 120 cases. Notifications received by Medical Superintendent Officer of Health :—

Under Form	A.—Sending for Medical help	28
,, ,,	B.—Notification of Death	15
,, ,,	C.—Notification of Still-birth	380
,, ,,	D.—Notification of having laid out a Dead Body	1
,, ,,	E.—Source of Infection	4
,, ,,	F.—Artificial Feeding	46

NOTIFICATION OF BIRTHS ACT

11,745 births were notified pursuant to the Notification of Births Act, and in addition, 14 were either discovered by Health Visitors or notified by the Registrars of Births, making a total of 11,759 ; of these, 6,019 were males, 5,740 were females, 380 were still-births and 515 were illegitimate births.

Of the total number notified, 8,647 were selected for visitation and supervision, and during the year 55,702 visits were made.

Births :—

Attended by Medical Practitioners and Midwives ..	2,285
,, only by Midwives certified by examination ..	2,368
,, only by Dispensary Midwives	180
,, by Midwives otherwise certified	14
,, in Jubilee Maternity Hospital	1,991
,, in Royal Maternity Hospital	1,667
,, in Johnstone House	272
,, in Mater Maternity	275
,, in Samaritan Hospital	67
,, by Nurses from Maternity Hospitals ..	400
,, in Malone Place Home	380
,, in Thorndale Home	303
,, in Nursing Homes	1,556
,, No Information	1

6 cases of Ophthalmia Neonatorum occurred during the year.

390 cases of Inflammation of Eyes were visited during the year in children under one year.

25 cases of Puerperal Pyrexia occurred during the year.

MIDWIVES AND NURSING HOMES ACT (N.I.), 1929

Two nursing homes were added to, and one nursing home was removed from, the Register of Nursing Homes under the above Act. At the end of the year 40 nursing homes remained on the register. 476 inspections were made.

The equipment, staffing, keeping of registers, etc., were found to be in conformity with the Act.

ANTE-NATAL REPORTS FOR THE YEAR 1946

The Royal Maternity Hospital

Total number of new patients	2,707
Total number or re-attendances	15,086

The Ulster Hospital, Templemore Avenue

New cases in Out-patient Department	236
Return cases in Out-patient Department	617

Malone Place Home

New Patients	432
Re-attendances	2,214

Municipal Clinics

New Patients	2,682
Re-attendances	10,509

Thorndale House, Duncairn Avenue (The Salvation Army), and the Belfast Midnight Mission and Rescue and Maternity Home, 31 Malone Place.

The above Homes, which receive grants from the Belfast Corporation, carried out their work during the year in a satisfactory manner.

The following shows the number of confinements which took place during the year in Thorndale House and Malone Place Home :—

	Total	City Cases	Outside City Cases
Thorndale House			
Number of Confinements (married mothers)	254	242	12
Number of Confinements (unmarried mothers)	50	12	38
Malone Place Home			
Number of Confinements (married mothers)	259	251	8
Number of Confinements (unmarried mothers)	126	28	98

GRANTS TO INSTITUTIONS

During the year the Corporation added two more institutions to the list of those receiving grants for Maternity and Child Welfare Work, viz., Glendhu Children's Hostel, Holywood Road, and Hopedene Hostel, Dundela Avenue. Glendhu Hostel provides a temporary home for young children whose mothers are unable to care for them by reason of illness or other cause, and is especially valuable in cases where both the mother and father are absent from home, as here the provision of daily help does not meet the night requirements of the children. The hostel provision is, therefore, a useful complement to our Home Help Scheme. Hopedene Hostel provides for the care of the unmarried mother and her baby. Both are kept in residence until the baby is about six months old, when arrangements of a more permanent nature are made to meet the needs of the individual case. This brings the number of hostels providing for the unmarried mother and her child and receiving grants from the Corporation up to three, viz., Hopedene, Malone Place and Thorndale Home.

MATERNITY AND CHILD WELFARE CENTRES

The following table shows the number of names on the roll of each Centre and the total number of attendances during the year, also the number of babies medically examined and the total number of examinations :—

	On Roll	Total No. of attendances by mothers	Babies medically examined	Total examinations of babies
Danube Street	333	4,155	541	1,302
Donegall Road (Monday)	336	3,310	486	902
do. (Tuesday)	388	3,682	553	1,131
Dee Street	360	3,291	430	1,127
York Street	495	3,722	547	1,003
Spiers Place (Tuesday)	445	4,647	679	1,121
Spiers Place (Thursday)	323	2,543	450	918
Spiers Place (Friday)	465	3,603	559	1,181
Falls Road	526	3,381	506	1,098
Havelock Place	454	4,003	636	1,298
Woodstock (Wednesday)	388	4,041	479	1,025
Woodstock (Friday)	408	4,098	393	848
Ligoniel	209	2,148	353	722
Mervue Street	442	4,100	580	1,246
*Avoca Street (Wednesday)	216	1,792	247	585
Avoca Street (Thursday)	420	4,547	424	901
Divis Street	491	4,377	882	1,561
Sydenham	351	3,794	493	1,130
Glenard	477	3,540	563	1,263
Bloomfield	376	3,679	445	901
Greencastle	224	2,395	297	736
Susan Street	415	4,071	512	1,242
Seaview	275	3,281	513	968
Joanmount	224	2,180	306	607
Kimberley Street	322	2,967	531	1,031
*Commenced 1/4/'46	9,363	87,347	12,405	25,847

HOME HELP SCHEME

This scheme continued to meet an ever increasing demand throughout the year. The average number of Home Helps on the panel was 50, and a total of 646 cases were dealt with. Confinement cases and mothers undergoing treatment in hospital were given priority in the daily administration of the scheme, but, in addition, many other mothers of young children were assisted during periods of illness at home, either by full-time or part-time home help.

OTHER SCHEMES

Other schemes in operation during the year were: Treatment of squint: Home nursing of gastro enteritis and broncho pneumonia in children under two years by arrangement with the District Nursing Society: Dental treatment for expectant mothers and toddlers, by arrangement with the Royal Victoria Hospital: Provision of meals for expectant mothers and their toddlers, by arrangement with the Education Department: Services of the Obstetrical Flying Squad in cases of haemorrhage and obstetric shock, by arrangement with the Royal Maternity and Jubilee Hospitals.

During the year demonstrations in the preparation of meals suitable for young children were again kindly arranged at the various centres of the Ministry of Food. The vitamin preparations supplied by this Ministry were issued at all the centres, as were also infant foods and various food supplements.

The Belfast Voluntary Workers' Association continued to render valuable service at the Child Welfare Centres during the year, and we again take the opportunity of recording our appreciation of this most helpful assistance.

Report of the Senior Tuberculosis Officer

on the work of

The Tuberculosis Institute

For the Year ended 31st December, 1946

To the Medical Superintendent Officer of Health.

Dear Sir,

I have pleasure in presenting for your information my annual report on the work of the Institute for the year ended 31st December, 1946, the thirty-first since the scheme of the Belfast Corporation for the prevention and treatment of tuberculosis was inaugurated in April, 1914.

During the year we examined 5,335 *new* patients—the greatest number of new patients examined in any year since the commencement of our work.

NEW EXAMINATIONS

TABLE I

Shows the number of patients examined *for the first time,* in each of the years indicated, without regard to age, sex, or diagnosis.

YEAR ENDED	No. OF EXAMINATIONS
31st December, 1941	1765
31st December, 1942	2822
31st December, 1943	3290
31st December, 1944	3399
31st December, 1945	4162
31st December, 1946	5335

The number of primary examinations made from the date of the opening of the Institute in April, 1914, was 72,887.

TABLE II

Shows the diagnostic result of examination of new patients during the years indicated.

Year Ended	Tuberculous	Primary T.B. Complex	Non-Tuberculous	Diagnosis not Completed	Total
31/12/42	627	276	1671	248	2822
31/12/43	628	250	2151	261	3290
31/12/44	762	186	2202	249	3399
31/12/45	724	246	2784	408	4162
31/12/46	1040	214	3432	649	5335
Percentages year ended 31/12/46	19.5%	4%	64.3%	12.2%	100%

CONTACTS

TABLE III

Shows the result of the examinations of " Contacts " during the year 1946.

Contact of	Tuberculous		Primary T.B. Complex		Non-Tuberculous		Not Diagnosed		Total
	Under 15	Over 15	Under 15	Over 15	Under 15	Over 15	Under 15	Over 15	
Pulmonary Cases with POSITIVE Sputum ..	1	16	20	..	78	162	11	26	314
Pulmonary Cases with NEGATIVE Sputum ..	..	8	6	..	109	275	11	21	430
NON-PULMONARY Cases	..	..	..	..	1	10	..	..	11
DECEASED Patients ..	..	..	1	..	12	46	4	8	71
TOTALS ..	1	24	27	..	200	493	26	55	826

Of the new patients examined during the year, 4,509 were notified as suffering, or suspected to be suffering from tuberculosis, and 826, as shown on Table III, were " contacts " attending at the request of the Health Visitor.

FORMS OF TUBERCULOSIS

TABLE IV

Shows the number and sex of the patients found to be suffering from the different forms of tuberculosis. (Including patients examined prior to 1946 but not definitely diagnosed tuberculous till this year.)

Year Ended	Pulmonary		Glandular		Osseous		Abdominal		Other Forms		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
31/12/42	276	266	14	17	14	14	8	13	2	3	314	313
31/12/43	300	261	11	15	7	10	12	7	1	4	330	298
31/12/44	348	321	10	12	17	9	14	15	7	9	396	366
31/12/45	374	313	9	7	16	11	12	10	6	4	417	345
31/12/46	548	505	8	10	11	12	13	10	..	2	580	539

RE-ATTENDANCES AND RE-EXAMINATIONS

The number of re-attendances of " old " patients for examination and treatment at the Institute during the year was 16,755. In addition 7,632 special re-examinations were carried out. 154 patients unable to attend at the Institute were re-examined in their homes or in hospitals by the medical staff of the Institute. This was exclusive of attendances of patients in their homes by panel and domiciliary doctors acting under the scheme of the Council.

A small number of lupus patients attend at the Institute and have made very good progress on Vitamin D.

PATIENTS ON THE VARIOUS FORMS OF TREATMENT

TABLE V

Shows the numbers of *definitely tuberculous* patients on the different forms of treatment at 31st December, 1946.

Institute	Domiciliary		Institutional					
	Insured	Non-Insured	Mun. San. W'abbey	Children's Hospital	Minnowburn Hosp.	M.O.H. Em. Hosp.	Bel. City Hospital	Total
854	2175	444	320	48	39	150	50	4080

The above figures are exclusive of 582 patients not definitely diagnosed at the end of the year, but under observation on one or other form of treatment, and also of a number of cases of Primary T.B. Complex in children.

The total *definitely tuberculous* patients *treated* during the year numbered 5,020.

NEW CASES AND DEATHS IN AGE-PERIODS.

TABLE VI

Shows the numbers of new cases and of deaths amongst males and females in the Age-period set out.

Age Periods	New Cases		Deaths			
	All Forms of Tuberculosis		Pulmonary		Non-Pulmonary	
	Males	Females	Males	Females	Males	Females
No Age given	4	6	..	..	..	..
0— 4 inclusive ..	7	7	2	1	16	15
5— 9 ,, ..	11	7	..	..	2	3
10—14 ,, ..	17	23	2	3	1	3
15—19 ,, ..	70	105	6	21	5	1
20—24 ,, ..	79	134	18	29	4	3
25—34 ,, ..	125	134	36	46	3	6
35—44 ,, ..	111	62	38	19	2	4
45—54 ,, ..	86	32	38	17	3	2
55—64 ,, ..	58	21	30	7	3	..
65 and upwards ..	12	8	19	7	2	..
Total ..	580	539	189	150	41	37

During the year 1946—

12,765 X-ray films were taken, and screenings as required carried out.

963 Tuberculin tests were done. The total number of children tested by this method to the end of 1946 was 11,256.

3,816 Artificial Pneumothorax Refills were given.

74 Dental Examinations and Treatments.

DEATHS AND DEATH RATES

Pulmonary Tuberculosis.—The number of deaths in Belfast in 1946, according to the return of the Registrar General for Northern Ireland was 339, as compared with 326 in 1945, and 836 in 1914. The *death rate* from pulmonary tuberculosis in 1946 was 76 per 100,000.

Non-Pulmonary Tuberculosis.—The number of deaths from the non-pulmonary forms of tuberculosis in 1946 was 78, as compared with 80 in 1945, and 290 in 1914. The *death rate* from non-pulmonary tuberculosis in 1946 was 17 per 100,000.

TABLE VII

Shows the declining trend of the death rate from tuberculosis in Belfast during the last 33 years.

Year	No. of Deaths		Death Rate per 100,000		Comparison of Rate with 1914 as 100	
	Pul.	Non-Pul.	Pul.	Non-Pul.	Pul.	Non-Pul.
1914 ..	836	290	209	73	100	100
1915 ..	770	286	191	71	91	97
1916 ..	792	259	203	66	97	90
1917 ..	912	289	232	73	111	100
1918 ..	992	265	252	67	121	92
1919 ..	867	261	216	65	103	89
1920 ..	783	225	189	54	90	74
1921 ..	624	163	148	39	71	53
1922 ..	534	158	126	37	60	51
1923 ..	528	159	123	37	59	51
1924 ..	615	166	142	38	68	52
1925 ..	571	202	130	46	62	63
1926 ..	582	141	140	34	67	47
1927 ..	509	152	123	36	58	49
1928 ..	493	147	119	35	57	48
1929 ..	475	122	114	29	54	40
1930 ..	469	129	113	31	54	42
1931 ..	438	124	105	30	50	41
1932 ..	427	128	103	31	49	42
1933 ..	450	159	108	38	52	52
1934 ..	448	122	108	29	52	40
1935 ..	401	108	96	26	46	37
1936 ..	406	94	97	22	46	30
1937 ..	414	96	94	22	45	30
1938 ..	348	107	78	24	42	37
1939 ..	365	71	83	16	39	22
1940 ..	412	94	94	21	45	28
1941 ..	426	98	97	22	46	30
1942 ..	369	79	84	18	40	25
1943 ..	367	117	84	27	40	37
1944 ..	354	89	81	20	40	27
1945 ..	326	80	74	18	35	25
1946 ..	339	78	76	17	36	23

From the foregoing table it will be seen that for every 100 persons who died of pulmonary tuberculosis in Belfast in 1914, 36 died in 1946—a reduction in the *death rate* of 64 per cent., while for every 100 persons who died of non-pulmonary tuberculosis in 1914, 23 died in 1946—a reduction in the *death rate* of 77 per cent. in the same period.

Since the Belfast Corporation undertook the treatment of tuberculosis in the year 1914 the deaths have declined from 1,126 to 417. The number of beds available in that year in the Municipal Sanatorium, Whiteabbey, was 265, and beds were also available in the Belfast City Hospital. To-day the number of beds available in the various hospitals and sanatoria are 616. This is truly a very creditable record and one of which the city can be proud. Nevertheless, tuberculosis is still an almost omnipresent disease. The following table represents the condition under which patients lived at the end of the year 1943, conditions probably better than in most cities of Great Britain to-day, but it is obviously one which facilitates the continuation of the disease.

District	Pulmonary Tuberculosis	Room and Bed to Self	Apartments	Model Lodging House
Ligoniel ..	364	53	10	3
Falls and Shankill ..	814	150	26	9
York Street and Cromac Street ..	294	68	7	4
TOTAL ..	1,472	271	43	16

The problem which we still have to deal with is the chronic patient; a solution was given 34 years ago by Sir Clifford Albutt, again I quote from my report of the year 1940.

" As to prevention . . . there are many bad cases with cough and spray from the mouth, which are dangerous to others. I am unwilling that such patients should be sent away into special retreats. It is a dismal fate to be secluded from their own people and neighbourhood. I think in thickly populated areas cottages hired here and there among their own people in their own districts would serve the purpose of prevention without seclusion and partial exile in an institution."

If a suitable hostel were provided in the city many patients in lodgings and also others living at home would avail themselves of the accommodation. With the heavy and rising cost of sanatoria and hospitals to-day the above measures would probably be more economical than using beds for chronic patients. It might be possible for the Corporation to keep some of the present housing sites for families with tuberculosis. Whilst overcrowding of healthy families may not be desirable, overcrowding of tuberculous families is dangerous and eventually a heavy charge on the country.

The doctors of the city have more and more availed themselves of the facilities of the Department, as can be seen by the increased numbers of the new patients examined, which is more than double pre-war years.

The general outlook of the patients and their relatives have changed. In the early years it was difficult to get many people to enter a sanatorium, and there were often empty beds. To-day, notwithstanding that over 600 beds are occupied, there is a waiting list of over 400.

It can be computed with certainty how many people will die of tuberculosis in 10 years from now. Why should they die? Would our people contemplate a similar number of deaths from typhoid with equanimity? It is a pity that this tubercle bacillus is not a yellow fly and then the community might be brought to face the problem, the magnitude of which is gigantic. We must remember that we are dealing with a disease which is omnipresent, and probably everyone in a city at 50 years of age has been infected. Whether or no we can eradicate tuberculosis, or whether it naturally co-exists with man like the colon bacillus, is a matter of doubt. The question of whether adult tuberculosis is a re-infection or a recrudencence of childhood tuberculosis has not been decided, and if it were possible it would be well to admit every child to an open-air school as soon as it becomes a positive tuberculin reactor. Unless we can accommodate patients so that they are not forced to sleep with children or young people we can make little progress. It is very desirable to restore tuberculous patients to a state of comparative health, by rest in a sanatorium, as is done all over the world, but unfortunately many of them when they are discharged are still liable to be a source of continuous infection to their families unless they have suitable accommodation at home. Whilst the death rate has fallen, the incidence of tuberculosis is higher than ever. 1,119 patients were found to be suffering from tuberculosis in 1946 as compared with 762 in 1945.

The Functions of a Dispensary

(1) The patient is referred to the Dispensary for an opinion by a physician. A clinical, radiographical and bacteriological examination is carried out, and in the case of children a tuberculin test. The notifying physician is informed by letter of the result of the examination and, should tuberculosis be diagnosed, the treatment considered advisable.

(2) In the examination of " contacts " the same procedure is followed.

(3) Among the large number of patients examined many are doubtful cases and many cases possibly arrested. To save the needless hardship and useless expense of sending these patients to the sanatorium many check examinations are required. This entails heavy work on the staff and must ever increase as dispensaries become better equipped and more fully staffed.

(4) It is the duty of the dispensary staff to be conversant with the domestic conditions of the patients' families and to obtain help where necessary from the various societies which are now so generously assisting our patients.

I desire to thank the Medical Officer of Health and the Committee for their assistance and co-operation, and finally, I desire to thank the staff for the efficient manner in which they have carried out the increased work of the Department.

I am,

Yours faithfully,

JAMES SHAW,

Senior Tuberculosis Officer.

Report of the Medical Director

ON THE

Work of the Mass Radiography Centre

For the year ended 31st December, 1946

To The Medical Superintendent Officer of Health.

Dear Sir,

I have the honour to present to you the Second Annual Report of the Mass Radiography Centre for the year ended 31st December, 1946.

During the year 30,175 examinees attended the unit, making a total of 46,450 examined since the centre opened on the 12th June, 1945.

The Mass Radiography Scheme in Belfast is at present confined to residents and workers within the County Borough of Belfast. Applications for examination continue to be received from large numbers living outside the Belfast area who have not the occupational qualification.

As formerly, the examination was applied during the year to workers already organised in groups—as in large factories, etc.—but, realising that a demand for examination at the centre existed which was not covered by these groups, sessions were organised to attract members of small firms and individuals. This was accomplished by advertisements in the local Press, the applications received being grouped in suitable numbers. The response to this scheme was so encouraging that during the last quarter of the year six "open" sessions were held in the evenings in order to facilitate those who could not be relieved of their duties during working hours. At these six evening sessions over 1,600 people attended.

During the year the work of the centre was also extended to include school children of fourteen years of age and over. Arrangements are already being made to examine all children attending public elementary schools during their last school term prior to taking up employment.

While most of the examinations during the year were carried out at the centre, the unit was on three occasions temporarily installed in a large factory. The managements of each of these factories were good enough to allow the employees of neighbouring firms to attend for examination while the unit was operating in their premises.

I give below, in Tables I to XI, a detailed analysis of the work accomplished during the year under review.

TABLE I

Miniature Radiography Examinations

	Male	Female	Total
Total number examined by Miniature Radiography	15,452	14,723	30,175

TABLE II

Large Film Investigations

	Male	Female	Total
Number recalled for large film examination	1,126	1,176	2,302
Percentage of examinees required to attend for large film examination ..	7.3	8.6	7.6
*Number who did not attend	34	37	71
Number examined by large film ..	1,092	1,139	2,231

*10 of the 71 examinees who did not attend for large film examination were classified on the miniature film.

TABLE III
Clinical Investigations

	Male	Female	Total
Number recalled for clinical examination ..	577	608	1 185
Percentage of examinees recalled for clinical examination following large film examination	3.7	4.1	3.9
*Number who did not attend	8	8	16
Number clinically examined	569	600	1,169

*12 of the 16 examinees who did not attend for clinical examination were classified on the large film examination. Of the 4 unclassified, 3 were in the 15-24 age group (1 male and 2 females), and 1 in the 45-59 age group (male).

TABLE IV
Age Groups of Examinees
(excluding 65 who were not classified)

	14 Years	15–24	25–34	35–44	45–59	60 and Over	Total
Male ..	1,334	5,899	3,338	2,616	1,956	277	15,420
Female ..	1,104	8,136	2,769	1,681	929	71	14,690
Both Sexes ..	2,438	14,035	6,107	4,297	2,885	348	30,110

TABLE V
Cases Diagnosed Pulmonary Tuberculosis (Post Primary)

	Active	Inactive	Total
Male	86	334	420
Female	117	239	356
Both Sexes	203*	573	776

74 (13 active and 61 inactive) of the total number had been previously diagnosed.

*Of the 203 active cases, 103 (or 50.7%) were found to have tubercle bacilli in their sputum.

TABLE VI
Disposal of 190 Cases diagnosed Active Pulmonary Tuberculosis Post Primary (Not previously known)

	Sanatorium	Observation*	Referred to Doctor	No Action
Male	54	23	1	..
Female	68	41	3	..
Both Sexes	122	64	4	..

*Observation at Central Tuberculosis Institute, Mass Radiography Centre or County Tuberculosis Dispensaries.

TABLE VII

Disposal of 13 Cases diagnosed Active Pulmonary Tuberculosis—Post Primary (Previously known)

	Sanatorium	Observation*	Referred to Doctor	No Action
Male	4	3	1	..
Female	3	2	..	..
Both Sexes	7	5	1	..

*Observation at the Central Tuberculosis Institute, Mass Radiography Centre or County Tuberculosis Dispensaries.

TABLE VIII

Disposal of 512 Cases diagnosed Inactive Pulmonary Tuberculosis—Post primary (Not previously known)

	Observation*	Referred to Doctor	No Action
Male	99	93	111
Female	95	47	67
Both Sexes	194	140	178

*Observation at the Central Tuberculosis Institute, Mass Radiography Centre or County Tuberculosis Dispensaries.

TABLE IX

Disposal of 61 Cases diagnosed Inactive Pulmonary Tuberculosis—Post Primary (Previously known)

	Observation*	Referred to Doctor	No Action
Male	11	10	10
Female	22	1	7
Both Sexes	33	11	17

*Observation at the Central Tuberculosis Institute, Mass Radiography Centre or County Tuberculosis Dispensaries

TABLE X

Analysis of 776 Cases of Pulmonary Tuberculosis (Post Primary) showing number of cases in each age group with corresponding percentages (% in brackets)

Sex	Ages	14 Years	15–24	25–34	35-44	45–59	60 and over	Totals
Male	No. of Examinees	1,334	5,899	3,338	2,616	1,956	277	15,420
	Active	1 (.07)	32 (.54)	23 (.69)	21 (.80)	6 (.31)	3 (1.08)	86 (.56)
	Inactive	..	52 (.88)	74 (2.22)	100 (3.82)	93 (4.75)	15 (5.41)	334 (2.17)
Female	No. of Examinees	1,104	8,136	2,769	1,681	929	71	14,690
	Active	3 (.27)	80 (.98)	25 (.90)	6 (.36)	2 (.21)	1 (1.41)	117 (.80)
	Inactive	2 (.18)	65 (.80)	64 (2.31)	58 (3.45)	46 (4.95)	4 (5.63)	239 (1.62)
Both Sexes	No. of Examinees	2,438	14,035	6,107	4,297	2,885	348	30,110
	Active	4 (.16)	112 (.80)	48 (.78)	27 (.63)	8 (.28)	4 (1.15)	203 (.67)
	Inactive	2 (.08)	117 (.83)	138 (2.26)	158 (3.68)	139 (4.82)	19 (5.46)	573 (1.90)

TABLE XI

Cases diagnosed Active Primary Tuberculosis (Pulmonary) with Disposal

	Total Number	Sanatorium	Observation*	Referred to Doctor	No Action
Male	16	2	13	..	1
Female	21	..	19	1	1
Both Sexes ..	37	2	32	1	2

*Observation at Central Tuberculosis Institute or Mass Radiography Centre, or at County Tuberculosis Dispensaries.

In addition to the above cases of tuberculosis, the following abnormalities were diagnosed (excluding cases of bronchitis and emphysema) :

Bronchiectasis	51	
Atypical Pneumonia	17	
Pulmonary Fibrosis (non-tuberculous) ..	14	
Pneumokoniosis	1	
Carcinoma of Lung	2	
Mediastinal Sarcoma	1	
Neurofibroma	1	
Chondroma of Lung	1	
Mediastinal Tumour (nature not yet determined)	2	
Pleural Effusion (tuberculous)	9	
Pleural Thickening	523	
Cardio-vascular lesions (congenital) ..	10	(30% known)
Cardio-vascular lesions (acquired) ..	231	(59% known)
Cystic disease of lung	1	
Sarcoidosis	5	
Dextrocardia	5	
Eventration of Diaphragm	4	
Diaphragmatic Hernia	1	
Metaphyseal Aclasis	1	
Tuberculosis of Dorsal Spine	1	

In order to complete the assessment of certain cases it was necessary to carry out a number of re-examinations, both clinical and radiological, and in this connection 461 clinical examinations and 771 large film examinations were made. This made a total of 1,630 clinical examinations and 3,002 large film examinations for the period.

At clinical examinations blood and sputum examinations and Mantoux tests were carried out when considered necessary. Specimens of sputa are, as a routine, examined by direct and culture methods. During the year 672 specimens of sputum were examined by the direct method, 320 being subsequently examined by the culture technique. Tubercle bacilli were found in 41 specimens by direct examination and in 63 cases tubercle bacilli were isolated by culture.

SUMMARY

776 cases of pulmonary tuberculosis were found in the 30,110 people examined.

Of these, 74 cases were previously known, leaving a total of 702 cases diagnosed for the first time.

380 new cases of pulmonary tuberculosis detected required immediate sanatorium treatment or specialised supervision by tuberculosis officers. In addition, 7 of the 74 "known" cases of pulmonary tuberculosis were recommended for sanatorium treatment.

Of the total number of people who completed the examination during the year (30,110) .42% were recommended for immediate sanatorium treatment.

The incidence of active pulmonary tuberculosis in 30,110 people examined conforms with the incidence already known in the various age and sex groups.

The low incidence below the age of 15 years is noted.

In the male sex there is a steady rise up to 44 years, while in the female sex the highest incidence is confined to the 15-34 age group.

The routine examination of 30,110 people has also revealed, in addition to the cases of pulmonary tuberculosis, a large number of non-tuberculous abnormalities of the heart and lungs.

In conclusion, I would like to thank the Directors, Managers and key personnel of the various industrial concerns for their co-operation and support during the year.

I am also indebted to the General Practitioners of the City and surrounding districts and to my colleagues in the Public Health and Tuberculosis Departments for the help they have given.

Finally, to all members of my own staff, I would like to acknowledge the valuable help they have so willingly given me.

Yours faithfully,

J. NORRIS WHYTE,
Medical Director.

The Report of the Acting Medical Superintendent

on the working of

The Belfast Municipal Sanatorium

For the year ended 31st December, 1946

Dear Sir,

I have the honour to present the twenty-third Annual Report upon the working and progress of this Institution.

CAPACITY—The maximum number of beds in the Sanatorium is 330. The distribution of the accommodation is as follows :—

TABLE I

	Pulmonary Tuberculosis Beds	Surgical Beds	Total
Males	170	10	180
Females	120	..	120
Children	30	..	30
Total	320	10	330

PERSONNEL

General Staff:

Medical Superintendent	1
Clinical Pathologist and Medical Officer	1
Assistant Medical Officers	3
Visiting Thoracic Surgeon	1
Visiting Orthopaedic Surgeon	1
Visiting Dental Surgeon	1
Dispenser and Statistical Clerk	1
Radiographer	1
Laboratory Technician	1
Laboratory Assistant	1
Temp. Laboratory Attendant	1
Chaplains	4
School Mistresses	2

Clerical Staff:

Administrative Assistant	1
Senior Clerk	1
Clerks	4

Nursing Staff:

Matron and Assistant Matron	2
Home Sister	1
Sisters	7
Theatre Sister	1
Staff Nurses	11
T.A. or Asst. Nurses	9
Student Nurses	32

Domestic Staff:

Cooks	2
Assistant Cooks	3
Maids	37
Cleaners	12

Miscellaneous:

Engineer	1
Main Engineer	1
Joiner	1
House-repairer	1
Gardener	1
Storekeeper	1
Others	21

Total Nursing Staff		63
Nursing Staff per ten beds	$\frac{63}{33}$	1.9

TABLE II

Return shewing the Extent of Treatment from 1st January, 1946, till 31st December, 1946. (Comparative figures for the year 1945 are shown in brackets).

WHITEABBEY	In Institution 31/12/45	Admitted During 1946	Discharged During 1946	Died During 1946	In Institution 31/12/46
No. of Patients ..	306 (317)	456 (426)	401 (407)	34 (30)	327 (306)

TABLE III

Return shewing the Classification of patients admitted during 1946.

TYPE OF CASE	Men	Women	Children	TOTAL
Pulmonary Tuberculosis	213 (203)	164 (134)	50 (55)	427 (392)
Surgical Tuberculosis	8 (10)	— (1)	6 (4)	14 (15)
Non-Tuberculous	5 (6)	1 (5)	1 (2)	7 (13)
Unclassified	— (2)	— (—)	— (—)	— (2)
Re-admissions	4 (4)	3 (—)	1 (—)	8 (4)
TOTAL	230 (225)	168 (140)	58 (61)	456 (426)

TABLE IV

Return shewing the Classification of patients discharged during 1946 (excluding those indicated in Table No. V)

TYPE OF CASE	Men	Women	Children	TOTAL
Pulmonary Tuberculosis	196 (196)	144 (122)	40 (46)	380 (364)
Non-Pulmonary Tuberculosis ..	4 (10)	1 (5)	7 (5)	12 (20)
TOTAL	200 (206)	145 (127)	47 (51)	392 (384)

TABLE V

Return indicating patients discharged during 1946 but not included in treatment survey.

	Men	Women	Children	TOTAL
In residence less than one month (excluding deaths and discharges)	11 (19)	8 (12)	3 (6)	22 (37)
Redischarges	— (—)	— (—)	— (—)	— (—)
Non-tuberculous	6 (5)	2 (5)	2 (1)	10 (11)
Temporary discharges of patients still in residence	1 (1)	— (1)	— (—)	1 (2)
Temporary discharges of patients not included above	4 (3)	5 (—)	1 (—)	10 (3)
TOTAL	22 (28)	15 (18)	6 (7)	43 (53)

TABLE VI

Return indicating the duration of residence of patients in the Sanatorium during the year 1946.

Patients Discharged:	
(1) Suffering from Pulmonary Tuberculosis	264.5 days
(2) Suffering from Non-Pulmonary Tuberculosis ..	210.3 ,,
(3) Suffering from P.T.C.	227.0 ,,
(4) Observation Cases	215.7 ,,
Patients Died:	
(1) Suffering from Pulmonary Tuberculosis	332.6 ,,
Not included in above :	
1 Patient discharged suffering from Bronchial Carcinoma	21.0 ,,

TABLE VII

Analysis of patients with Pulmonary Tuberculosis discharged during 1946

		DURATION OF RESIDENCE IN SANATORIUM															
Type of Disease upon Admission	Condition upon Discharge	Under 3 Months			3—6 Months			6—12 Months			Over 1 Year			TOTALS			TOTAL
		M	W	C	M	W	C	M	W	C	M	W	C	M	W	C	
Class T.B. Minus	Quiescent	4	10	3	17	9	4	10	13	10	5	2	4	36	34	21	91
	Improved	2	2	2	3	2	2	6	1	4	1	—	—	12	5	8	25
	N.M. Imp.	1	3	—	2	—	1	—	—	1	—	—	—	3	3	2	8
	Died	—	—	—	—	—	—	1	—	—	1	—	—	2	—	—	2
	TOTAL	7	15	5	22	11	7	17	14	15	7	2	4	53	42	31	126
Class T.B. Plus Group 1	Quiescent	—	—	1	1	4	—	2	3	—	2	1	—	5	8	1	14
	Improved	2	—	—	—	—	—	—	1	—	1	—	—	3	1	—	4
	N.M. Imp.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TOTAL	2	—	1	1	4	—	2	4	—	3	1	—	8	9	1	18
Class T.B. Plus Group 2	Quiescent	—	1	—	3	2	—	5	5	—	8	6	1	16	14	1	31
	Improved	4	2	—	4	2	—	9	4	—	8	3	—	25	11	—	36
	N.M. Imp.	3	1	—	4	—	—	1	1	—	—	—	—	8	2	—	10
	Died	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1
	TOTAL	7	4	—	11	4	—	15	10	—	16	10	1	49	28	1	78
Class T.B. Plus Group 3	Quiescent	—	—	—	—	—	—	3	—	—	6	3	2	9	3	2	14
	Improved	1	3	—	3	1	—	13	9	—	15	15	1	32	28	1	61
	N.M. Imp.	8	7	—	6	1	—	7	8	—	8	8	2	29	24	2	55
	Died	2	4	—	4	3	1	2	3	—	8	—	1	16	10	2	28
	TOTAL	11	14	—	13	5	1	25	20	—	37	26	6	86	65	7	158
	GRAND TOTAL	27	33	6	47	24	8	59	48	15	63	39	11	196	144	40	380

SURGICAL SECTION. TABLE VIII

Patients discharged during 1946. The following is an analysis of these cases :—

		DURATION OF RESIDENCE IN SANATORIUM															
Classification upon Admission	Condition upon Discharge	Under 3 Months			3—6 Months			6—12 Months			Over 1 Year			TOTALS			TOTAL
		M	W	C	M	W	C	M	W	C	M	W	C	M	W	C	
Osseous	Quiescent	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	1
	Improved	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	N.M. Imp.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	1
	TOTAL	—	—	—	—	—	1	1	—	—	—	—	—	1	—	1	2
Abdominal	Quiescent	—	—	—	—	—	2	1	—	—	—	—	—	1	—	2	3
	Improved	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	N.M. Imp.	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TOTAL	—	—	1	—	—	2	1	—	—	—	—	—	1	—	3	4
Other Organs	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	N.M. Imp.	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1
	Died	—	—	—	—	1	—	—	—	—	—	—	1	—	1	1	2
	TOTAL	—	—	—	1	1	—	—	—	—	—	—	1	1	1	1	3
Glandular	Quiescent	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	1
	Improved	—	—	—	—	—	1	—	—	1	—	—	—	—	—	2	2
	N.M. Imp.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TOTAL	—	—	—	—	—	1	1	—	1	—	—	—	1	—	2	3
	GRAND TOTAL	—	—	1	1	1	4	3	—	1	—	—	1	4	1	7	12

TABLE IX

	DURATION OF RESIDENCE PRIOR TO DEATH							TOTAL
	Days			Months				
	1—10	11—20	21—31	1—3	3—6	6—12	Over 12	
Number of Cases ..	—	1	1	4	9	7	12	34

TABLE X

Classification of Patients in residence 28 days or less.

	Men	Women	Children	TOTAL
Minus	8	4	3	15
Group 1 Plus ..	—	—	—	—
Group 2 Plus ..	—	—	—	—
Group 3 Plus ..	2	5	—	7
Osseous	—	—	—	—
Abdominal	—	—	—	—
Glandular	1	—	—	1
Other Organs ..	—	—	—	—
Doubtful	—	—	—	—
Non-Tuberculous ..	2	1	—	3
Unclassified	—	—	—	—
TOTAL ..	13	10	3	26

TABLE XI

Cause of discharge of patients in previous table.

Against Medical Advice	Recommended	Transferred	Own Request	Death	TOTAL
8	3	6	8	1	26

TABLE XII

Artificial Pneumothorax Treatment. Results on discharge, 1946.

	No. of Cases	Sputum on Admission		Sputum on Discharge		Internal Pneumolysis	Phrenic Operation	RESULT					
		Pos.	Neg.	Pos.	Neg.			Q.	Imp.	I.S.Q.	Worse	Died	Total
Collapse Satisfactory ..	56												
Hilar	39	37	2	4	35	34	—	23	16	—	—	—	39
Mediastinal ..	15	14	1	5	10	11	2	5	10	—	—	—	15
Partial ..	2	2	—	1	1	1	—	—	2	—	—	—	2
Collapse Unsatisfactory	31	30	1	22	9	10	5	5	9	8	8	1	31
No Collapse ..	16	16	—	8	8	1	3	4	8	3	—	1	16
TOTAL ..	103	99	4	40	63	57	10	37	45	11	8	2	103

COMPLICATIONS

The following complications of pulmonary tuberculosis were noted during residence in hospital.

Other forms of Tuberculosis—

Abscess—thigh	1	Fingers	1
Adenitis	4	Fistula-in-ano	6
Brain—meninges	1	Hip	1
,, tuberculoma	1	Intestines	14
Elbow	1	Larynx	10
Emphyema	8	Skin	3
Epididymitis	3	Spine	3
Epiglottis	1	Tonsil	1

Other Diseases—

Abscess—lung	1	Hemiplegia	1
Acne	1	Hyperpiesis	1
Adenitis-cervical	3	Iritis	2
Albuminuria	3	Laryngitis—catarrhal	1
Amyloidosis	9	Leucoma	1
Anaemia	3	Median nerve lesion	1
Arthritis—ostes	1	Mitral Systolic Murmur	1
,, rheumatoid	1	Otitis media	7
Ascites	1	,, External	1
Asthma	3	Oedema—lungs	1
Blepharitis—chronic	1	Otosclerosis—bilat	1
Bradycardia	1	Papilloma—rt. vocal cord	1
Bronchiectasis	1	Parotitis	2
Bronchitis—chronic	5	Pharyngitis	1
Carbuncle	1	Pneumo-thorax—spontaneous	3
Chickenpox	3	Polypi—nasal	1
Cleft Palate	1	Pregnancy	8
Colitis	2	Psycho-neurosis	3
Cyst—epididymis	1	Psoriasis	2
Dermatitis	2	Pyorrhoea	1
Diabetes—mellitus	2	Recent Confinement	7
Eczema	1	Sinusites—chronic	1
Emphysema	10	Stomatitis	1
Epiphysitis	1	Syphilis	1
Fistula—faecal	1	Tonsilitis—acute	1
Fracture	1	,, chronic	1
Goitre	1	Ulcer—duodenal	2
Haemorrhoids	5	Urethritis	1
Heart Disease—congenital	2	Varicose Veins	1

OPERATIVE TREATMENT

A.P. Induction	97	Lipiodol	1
A.P. Induction attempted	33	Pneumonolysis	62
A.P. Refills	4,058	Phrenic Operation	30
Pneumo-peritoneum Inductions	22	Thoracoplasty	41
Pneumo-peritoneum Refills	565	Thoracoscopy	22
Bronchoscopy	1	Appendicectomy	1
Chest Aspirations	53	Myringotomy	1
Cystoscopy	1		

REPORT OF THE X-RAY DEPARTMENT, 1946

X-Ray Photographs—

Pulmonary	1,692
Surgical	162
Barium Meal	51
Dental	5
Lipiodol	12
Renal	13
	1,935
Screen Examinations	2,773

Kromayer Lamp	5 patients had	230	treatments.
Radiant Heat	1 ,,	40	,,

REPORT OF THE WORK OF THE EAR, NOSE AND THROAT DEPARTMENT

By T. KENNEDY HUNTER, M.B., F.R.C.S., D.L.O.

One hundred and thirty examinations were carried out, of these 64 were new patients. Of the new patients there were 7 cases of definite tuberculosis of the larynx. The sites affected in order of frequency were inter-arytenoid region, true cords, false cords, epiglottis and sub-glottic region. There was 1 case of cord paresis due to the pulmonary lesion.

Of the old patients there were 9 definite cases of tuberculosis of the larynx. 34 examinations were carried out on these cases. The progress of the larygneal lesion depended on the response to treatment of the pulmonary lesion in practically all cases. There were 2 cases of aural disease, 9 cases of nasal disease and 8 cases of pharyngeal disease. There was 1 case of tuberculous otitis media proved by bacteriological examination in a patient who had had a thoracoplasty, and 1 case of tuberculosis of the tonsil, the latter died in a short time.

A case of nasal polypi was operated on, and 1 myringotomy was performed.

REPORT OF THE VISITING DENTAL SURGEON

Extractions	154
Examinations and Dressings	161
Fillings	40
Scalings	15

WORK DONE IN THE PATHOLOGICAL LABORATORY, 1946

Total number of investigations 17,450

Blood—

Calcium	11
Cholesterol	11
Plasma protein	32
Phosphatase	1
Serum albumin	2
Serum globulin	2
Serum protein	2
Sugar	20
Urea	14
Van den Bergh	3
Complete examinations	28
Reticulocyte count	2
Grouping	60
Haemoglobin	41
Haematocrit	32
Sedimentation rate	3,088
Congo red absorption tests	2
Culture	1
Widal	1

Sputum—

Direct examination—	
B. tuberculosis	7,417
Culture	5,830
Asbestosis bodies	1
Malignant cells	3
Spirilla	10
Laryngeal reflex	54
Gastric lavages	13
Faeces	5

Pleural Fluid—

Bacteriological	27
Cytological	27

Cerebro-Spinal Fluid—

Complete investigation	7

Urine—	
Chemical examination	108
Bacteriological	58
Urea concentration tests	4
Pus—	
Bacteriological	108
Miscellaneous—	
Histological examinations	177
Post-mortem examinations	7
Miscellaneous (*Contd.*)—	
Complete water examinations	7
Phosphatase and bacteriological tests in milk	40
Bacteriological examination of ice cream	1
Fractional test meals	1
Preparation of tuberculin and vaccines	35
Animal inoculations	37
Blood transfusions	40

There was a slight increase in the number of patients admitted during the year 1946. The classification of patients according to type of disease was much the same as in 1945, there being more than 50 per cent. in the more advanced groups. The large number of patients, particularly male, in the higher age groups is a serious medical and public health problem. A striking feature of admissions during the year is the number of members of one family in the sanatorium at one time. Of two families, four members of each were in the hospital at the same time, and there were many other tragic examples of contact infection.

More than one-third of all patients admitted had some form of collapse therapy. The majority of the patients who had treatment by artificial pneumothorax required adhesion section. There has been an increase in the number of patients treated by pneumoperitoneum combined with phrenic crush. There has also been an increase in the number of patients treated by thoracoplasty, and the immediate results have been good. Pneumothorax on one side and thoracoplasty on the other side have been combined in several of these cases.

Rest and general sanatorium treatment are still regarded as being of the greatest importance, and many patients, not suitable for collapse therapy, have shown marked improvement with routine measures alone.

The necessarily prolonged period in hospital is trying for even the most long-suffering patients. Financial worry has been to a great extent mitigated by the Treatment Allowances Scheme, and in the case of Service patients by the Long-term Treatment Scheme.

Diversional therapy and entertainments are greatly welcomed by the patients. For the former we are very much indebted to the Red Cross and St. John Organisation for the supply of materials for handicrafts to Service and ex-Service patients. The organiser, Mrs. Crawford Brown, continues to give us her invaluable help. A very successful exhibition of handicrafts was held in December, at which the opening ceremony was performed by the Lady Mayoress, Mrs. W. F. Neill. Arrangements are being made with the College of Technology for classes in woodworking and weaving, and it is hoped that these will be started soon. The Extra-Mural Department of Queen's University has given courses of lectures on subjects of general interest, which have been greatly appreciated by the patients.

The instruction of nurses for the preliminary State examination and the Certificate of the Tuberculosis Association has been continued. Three nurses were successful in Part 1 and ten nurses in Part 2 of the Tuberculosis Association Examination, and eight nurses were successful in the Preliminary Examination.

A scheme for the employment of ex-patients as orderlies in the hospital was inaugurated, and is proving successful.

Various items of equipment were purchased, and painting and repairs, including repairs to roads, were carried out. The delivery of an electric vehicle has greatly facilitated the delivery of food and stores in the Institution. Work on the new recreation hall and workshops is almost completed, and arrangements have been made for the conversion of the bungalow into a ward with accommodation for 20 patients. Work has begun on a new dispensary, and a new greenhouse was erected.

The medical, nursing, administrative, outdoor and domestic staffs have been unfailing in their efforts for the care and comfort of the patients.

The work of the chaplains has been greatly appreciated. Regular religious services were held and classes in religious instruction were given for the children.

In the school medically suitable children continue to have classes. This helps greatly to prevent loss of valuable time to children of school age, which would otherwise be unavoidable during a long stay in hospital.

We are grateful to many friends who provided entertainments for patients during the year. Toc H continued to give monthly cinema shows—a very popular form of entertainment with patients. Musical programmes were given during the summer by the bands of H.M.S. King George V, Agnes Street Silver Band, Ballycoan Pipe Band, St. Malachy's Band and Laganvale Silver Band. Concerts were given by the Ohio Serenaders, Mr. McQuoid's Punch and Judy Show, the Ballycarry Players, Scribban's Kemp Concert Party, Mr. Walker's Party, Whiteabbey Youth Party and members of Whiteabbey Presbyterian Church. Two concerts were given by the Excelsior Male Voice Choir. These entertainments were much enjoyed and our thanks are due to these friends who gave so generously of their time.

Gifts were received from Her Excellency the Countess Granville, the British Legion, the Red Cross and St. John Organisation, Alderman Brown, Messrs. James Mackie, Ltd., Mrs. McKerlin, Mrs. Hobday, Barn Mills P.E. School, Jordanstown Church, Dr. B. R. Clarke, Messrs. R. Watson, Mrs. Brown, Mrs. Marshall, Mrs. Sproule, Mrs. Shields, Eden Nursing Cadets, Miss Poole, Miss Haisley, Mr. Harper, Messrs. C. Porter & Co., Mr. Reid, Mr. Patterson, Miss Nesbitt, Mrs. Megaw, the Rev. W. F. Maguire. A most generous and welcome gift of a cinema projector with sound attachment was presented by Mr. J. McCaherty.

Yours faithfully,

LILIAN V. REILLY,

Acting Medical Superintendent.

MUNICIPAL CHILDREN'S HOSPITAL
Greenisland

The Report of the Visiting Surgeon
For the Year ended 31st December, 1946

To the Medical Superintendent.

Dear Dr. Reilly,

I beg to submit my report on the clinical aspects of the hospital during 1946.

On the 1st January, 1946, there were forty-seven patients in hospital, twelve were admitted and twelve were discharged. Forty-seven remained in hospital on the 1st January, 1947.

Details of the patients discharged are given in tabular form, nine had the disease apparently quiescent, two were greatly improved and in good general health, while one was removed again by the parents four days after admission.

Mumps was introduced by a new patient and continued into this year. During 1946 nineteen of the patients and one of the nursing staff contracted the disease. In no case was the illness dangerous. In the early part of the year we had an epidemic of influenza, twenty-six of the patients and eighteen of the staff being affected. Again there were no serious consequences from this disease.

Attacks of tonsillitis were common, as usual, twenty-five cases amongst the patients and three in members of the staff. There were no cases of diphtheria.

Owing to the crowded conditions in the present building and the absence of facilities for isolation it is difficult to control the spread of infection.

At the Royal Victoria Hospital I had ninety-four visits from old patients and patients sent from the Institute to see me.

NUMBERS OF ADMISSIONS AND DISCHARGES DURING 1946

Remained in hospital on 1st January, 1946	47
Admitted during 1946	12
Total under treatment	59
Discharged	12
Died	0
Total	12
Remained in hospital on 1st January, 1947	47

CONDITIONS FOR WHICH PATIENTS WERE ADMITTED

Spinal caries	1
Doubtful spinal caries, for observation	1
Hip-joint disease	6
Tuberculosis of knee	3
Tuberculosis of elbow	1
Total	12

TYPE OF CASE REMAINING ON 1st JANUARY, 1947

Spinal caries	21
Spinal caries, observation	1
Hip-joint disease	15
Perthes disease	1
Tuberculosis of knee joint	5
Tuberculosis of elbow joint	1
Tuberculosis of foot bones	2
Multiple, spine and hip	1
Total	47

MUNICIPAL CHILDREN'S HOSPITAL, Greenisland

Details of patients discharged during 1946

SPINAL CARIES

Disease arrested .. 2 Improved 1

REGISTER NUMBER	AGE ON ADMISSION	SEX	NUMBER OF DAYS TREATED	CONDITION ON ADMISSION	CAUSE OF DISCHARGE	CONDITION ON DISCHARGE
487 and 555	1 10/12 years	M	(1) 1,001 (2) 1,229	Caries 12th dorsal and 1st lumbar vertebrae with sharp kyphos, otitis media.	(1) Diphtheria (2) Disease arrested.	In good health, well grown with no deformity.
491 and 571	4 6/12 years	F	(1) 1,158 (2) 1,061	Caries 11th and 12th dorsal and 1st lumbar vertebrae and later of 6th dorsal vertebrae.	(1) Diphtheria. (2) Disease arrested.	In good health. Back is rounded but not noticeably deformed.
350	3 7/12 years	F	4,049	Admitted in 1935 with caries 6th and 7th dorsal vertebrae and gross deformity. Disease spread down to 10th dorsal vertebrae, and spastic paraplegia came on in 1943 after she had been ambulant.	Improved.	General health good, partial spastic paresis, will probably be permanent.

HIP-JOINT DISEASE

Disease arrested .. .. 2 Removed C.M.A. 1

499	4 7/12 years	M	2,204	Right hip rigid in thirty degrees flexion. Later developed hip abscess and double otis media.	Disease arrested.	1¾ inches shortening due to upward displacement of acetabulum yet has ninety degrees free mobility. General health good.
610	13 years	F	231	Discharged in 1940 after five years treatment. Hip became flexed though quiescent. Re-admitted 1945.	Disease still quiescent.	Flexion almost reduced, adduction present. General health, normal.
612	5 9/12 years	M	4	Left hip-joint disease.	Removed by parents.	No change.

TUBERCULOSIS OF ELBOW-JOINT

Disease quiescent 1

REGISTER NUMBER	AGE ON ADMISSION	SEX	NUMBER OF DAYS TREATED	CONDITION ON ADMISSION	CAUSE OF DISCHARGE	CONDITION ON DISCHARGE
606	7 3/12 years	F	392	Right elbow fixed at ninety degrees flexion. Erosion humeral epiphysis and ulna. General condition poor.	Removed by parents. C.M.A.	Disease quiescent. X-ray shows good consolidation. Now a few degrees of movement.

TUBERCULOSIS OF ANKLE JOINT

Disease quiescent 1

601	11 3/12 years	M	366	White swelling right ankle, chronic otitis media.	Removed by parents. C.M.A.	All swelling gone. Clinically no sign of disease.

ABDOMINAL

Disease quiescent 1

595 and 616	9 years	M	(1) 478 (2) 61	Seemed moribund, obstruction and gross distension, due to Hiracksprung's disease, and calcified abdominal glands.	(1) Transferred to Children's Hospital for operation sympathectomy. (2) Disease quiescent.	In normal health.

MULTIPLE TUBERCULOUS LESIONS

Disease quiescent .. .. 2 Improved 1

450	7 10/12 years	F	2,623	Very bad. Multiple sinuses left hip. Later developed pleurisy, caries of sternum and caries of symphysis pubis.	Greatly improved.	In normal general health. Left hip showed bony ankylosis in optimum position, all sinuses healed except one quiet sinus in left ishio-rectal fossa.
521	4 years	M	1,629	Condition very bad. T.B. right knee with empyema of joint. Pneumonia and pleurisy on month of admission. Later developed a tuberculous granuloma over sacrum.	Disease quiescent.	In robust general health, clinically knee appears to be cured, but is advised to continue P.O.P. owing to tendency to develop knock knee.
594	9½ years	M	445	T.B. left ankle, white swelling. T.B. left middle finger with sinus. Cold abscess on forearm.	Disease quiescent. Removed by parents.	In good health, finger and forearm healed. Swelling gone from ankle, but he is not yet safe from recurrence.

INFECTIOUS DISEASES

Mumps	19
Tonsillitis	24
Influenza	26
Scabies	4
Impetigo	1

OTHER COMPLICATIONS

Acidosis	1
Albuminuria	3
Boils	7
Bronchitis	1
Blepharitis	2
Conjunctivitis	4
Coryza	1
Diarrhoea	7
Epistaxis	5
Extension sores	5
Herpes	2
Otorrhoea	8
Pressure sores, P.O.P.	6
P.U.O.	2
Rashes, non-specific	5
Minor septic conditions	9
Styes	4
Minor injuries	12
Tape worm	1
Vomiting attacks	19

MINOR OPERATIONS

Aspuations	4
Drainage incisions	4

ILLNESS OCCURING AMONGST MEMBERS OF STAFF

Boils	1
Diarrhoea and vomiting	5
High blood pressure	1
Minor injuries	3
Influenza	18
Mumps	1
Otitis media	1
Pleurisy	1
Post influenzal pneumonia	1
Tonsillitis	3
Minor septic conditions	3
Urticaria	1

Yours faithfully,

H. P. MALCOLM,
Visiting Surgeon.

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